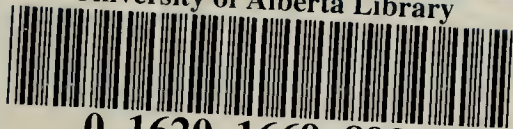


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A JOURNAL OF NATURAL HISTORY AND CONSERVATION  
FOR SASKATCHEWAN AND ADJACENT REGIONS

XXV, No. 3

Regina, Saskatchewan

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Saskatchewan Museum of Natural History Photo

Whooping Cranes in Saskatchewan snow, April 27, 1966

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# WATER POLLUTION

In southern Saskatchewan water is very precious. We must store and make the best possible use of all the water we have. This year we seem much richer for now we have Diefenbaker Lake.

We are richer, however, only if we can keep supplies alive and healthy. There is much talk of water pollution at Moose Jaw, in the North Saskatchewan, and in the beautiful Qu'Appelle Valley lakes. A valley farmer told me recently that if he sprinkles with water from the Qu'Appelle River below the Wascana Creek his plants die, especially things like the cucumber. Will all our waters soon be dead?

This summer returning from the east, near the end of June, we drove along the south shore of Lake Erie. The woods were beautiful but the lake was disappointing. We stopped overnight in a cabin right on the shore at Lorain, Ohio. The water was calm and a few gulls flew by. On the shore there were a few dead fish. A boy told me that the day before there had been some waves and hundreds of dead fish had come in but that these had been gathered up and buried. Lake Erie is now nearly dead. Perhaps I may quote a few lines from "America the raped" by Gene Marine (*Ramparts*, 34-45, April, 1967).

"Once upon a time there was a lake. It was a thing of magnificent beauty, left a breathtaking blue by departing glaciers. It was 30 miles wide in some places, nearly 60 in others, and more than 240 miles long. Ten thousand square miles of lake, over 200 feet deep, . . . .

"In 1669, a white man—Louis Joliet or Jolliet—saw the lake, and soon forts and settlements sprang up.

"Today, Lake Erie is virtually dead. Detroit, Cleveland, Buffalo, Akron, Toledo and a dozen other cities pour millions of tons of sewage into the lake every day. Some of it is fairly carefully treated; much of it (especially Detroit's) is not.

"The Detroit River, which feeds Lake Erie, carries every day, in addi-

tion to Detroit's largely untreated sewage, 19,000 gallons of oil; 100,000 pounds of iron; 200,000 pounds of various acids; and two million pounds of chemical salts. The fertilizer used on the farms of Ohio and Pennsylvania and New York drains into streams which pour into the Erie Paper mills in the Munroe area of Michigan pour volumes of pollutant waste into the lake. Steelmakers pour in mill scale and oil and grease and pickling solution and rinse water. The Engineers of the Army dredge the harbors and channels of the area and dump the sludge into the middle of Lake Erie.

"Normally, a lake receives from various sources a certain amount of nutrient material, which is consumed by plankton or algae or bottom vegetation or bacteria. The fish eat the plankton and the algae, the bacteria mess around with the nitrogen, a couple of hundred other processes simultaneously take place, and it all works out.

"So you dump a bunch of sewage or fertilizer or other biologically rich material into the water, and the algae, for instance, grow faster than the fish can eat them. Algae are life forms just like you and me, but (like you and me) in large numbers they stink. They also use up whatever free oxygen might be in the water, which makes it tough for the other life forms. Beaches become covered with algae in the form of slime, and so does the surface of the lake. The lake, in ecological terms, 'dies'.

"Lake Erie has had it."

This year, in spite of the drought, we have more water in the province but is it fit to drink or swim in? More important, is it fit for the life of normal aquatic organisms? We have no large cities to pollute our rivers and lakes but we do have nearly a million people, so we must learn how to prevent water pollution. In fact we must try to improve the present water quality before trying to attract more people and more industries to our province.—G. F. Ledingham, Regina.



# CAMPUS WILDLIFE

by **J. W. T. Spinks**, President, University of Saskatchewan, Saskatoon

This description of wildlife on campus at the President's Residence in Saskatoon will introduce many of our readers for the first time to the Saskatchewan Natural History Society's honorary president, Dr. J. W. T. Spinks. In the years that he has served as honorary president, Dr. Spinks' warm interest in our projects has been much appreciated. Where he takes time from the busy round of activities as President of the rapidly expanding University of Saskatchewan to share his personal appreciation of wildlife with other readers of the Blue Jay.

One of the more pleasant aspects of the life of the President of the University of Saskatchewan is that he lives in a very nice house situated at the top of a high bank overlooking the South Saskatchewan River, near the 5th Street bridge in Saskatoon. There is a rather large garden with many trees, including a very fine avenue of blue spruce leading down to the house. The garden is surrounded by a wire fence which serves to keep out at least some of the dogs and cats which might otherwise stray in, and this encourages wild animals to come up from the river bank to the garden. So we see rabbits, squirrels, chipmunks, gophers, striped gophers, the occasional porcupine and weasel, and one evening recently, a family of four skunks playing together on a ledge of rock at the edge of the rock garden, just like kittens! We gave them a wide berth!

The animals are not an unmixed blessing. We don't mind the squirrels tripping the trees of cones, but we are not so happy when we find that the porcupine has chewed the bark off a number of tree branches and that the rabbit has developed an undesirable taste for young rose bushes which get eaten right down to ground level. And in the spring tulips seem to take their fancy too. One rabbit took a particular fancy to the pansies and would eat them in a very entertaining fashion nipping off a stem well down from the flower, chewing meditatively at the stem until only the flower remained just in front of the rabbit's lips, and then, plop, the flower would disappear, just like a child sucking in bubble gum! Not so amusing when

the rabbit does this at the rate of three per minute!

During the winter the various animal tracks in the fresh snow in the garden and in the driveway gave continuous pleasure, giving evidence that the animals were around even when one didn't see them.

The birds are a continuous and changing source of pleasure — robins, thrushes, woodpeckers, crows, canaries, orioles, starlings, catbirds, grosbeaks, mourning doves, etc., and even the occasional humming bird. The binoculars and bird books are always at hand even though we are not experts. Some winters we have had pheasants and partridges in the garden, and we have done our best to feed them. One winter a pheasant kept company with four partridges which would often spend the night on our lawn, almost buried in the snow. The pheasant would wait until one of the partridges had scraped a hole in the snow and then he would move in and settle down in the hole himself, head projecting in one direction, long tail lying on the snow in the other, apparently quite comfortable even at 40 below.

All in all, these casual but almost daily observations of wild life add greatly to the pleasure of living on campus.





# DESTRUCTION OF THE PRAIRIE FALCON AT CALGARY, ALBERTA

by Kevin van Tighem, 315 Sharon Ave. S.W., Calgary, Alberta

In *Birds of Alberta* (1966) by Salt and Wilk there is a statement which says that "... the Prairie Falcon seems to be holding its own better than many other species of hawk." During the past two years several observations made by interested observers in the Calgary region have proven that there is by no means any reason for saying that the Prairie Falcon is faring well.

One eyrie at Bearspaw Reservoir, near Calgary, has been watched for several years by a small group of observers. In the period from 1963 to 1966 at least three Prairie Falcons were shot with .22 rifles by irresponsible people. In 1966 the falcons arrived and began frequenting the sandstone cliffs again, but early in the year the male was shot. After a few days a second tercel appeared and the pair successfully raised four young after a late nesting. In 1967 the birds arrived in March and were definitely established in the cliff area until well into April. At this time I saw several people in the area with guns and I was not surprised to find the tercel dead late in April. The falcon was soon joined by another male but in the middle of May the pair abandoned the site and have not been seen in the area since.

The majority of the falcons and other hawks killed in this area are shot in the early spring upon arriving. At this time the lake is still icebound and people can drive up from the city and cross on the ice to the cliff area. Another reason for the departure of the Prairie Falcons from the area is the increasing use by humans of the bay in which the cliffs are located. The cliffs are often explored by families and children who walk in from Calgary or come across the lake by motorboat or canoe. Although the eyrie itself is inaccessible the constant shouting and movement prevents the

falcons from remaining on the eyrie for any length of time.

There are other nest sites in the Calgary region besides this which are faring poorly too. At Bighill Creek near Cochrane two pairs of Prairie Falcons were found nesting in 1966. One nest contained four downy young; the other was destroyed by an egg collector. Ten occupied eyries under observation along the Bow River from Calgary downstream were also affected by irresponsible people. At least six were eliminated by amateur egg collectors or people with a mistaken compassion for baby birds; the other four contain from one to four young.

The great part of the damage inflicted upon the Prairie Falcon is done by people from the cities out for a day or a weekend who have no interest in protecting natural beauty. People upon whose property falcons nest appear to be among the few who realize that once destroyed these things can never be replaced.

As the inventions of science make man more destructive, the most notably affected birds are the raptors whose territories are often large, whose production rates low and susceptibility to maltreatment high. Pesticides cause infertility in eggs, pollution causes food sources to be poisoned and various new modes of transportation permit lawless and irresponsible people to reach out into the more remote regions where they cause the greatest harm. It seems strange that at a time when the public is becoming more and more concerned about the preservation of our natural heritage, laws concerning the shooting of hawks and the collection of their eggs and young should so seldom be enforced. Until some degree of official concern appears there is still a chance that birds like the Prairie Falcon and Peregrine Falcon will follow the Passenger Pigeon.



# RECOVERIES OF RED-TAILED HAWKS BANDED IN SASKATCHEWAN

by **C. Stuart Houston**, 863 University Drive, Saskatoon

With this issue begins a series of maps showing recoveries of birds banded in Saskatchewan. These maps are compiled from data on a computer "print-out" of all recoveries of Saskatchewan-banded birds (excluding waterfowl), supplied by the U.S. Fish and Wildlife Service, through the Canadian Wildlife Service. It will be seen that the efforts of many Saskatchewan banders over a period of nearly 45 years collectively provide a great deal of information about the movements and longevity of certain species of Saskatchewan birds. The first recoveries were from birds banded in 1923 by R. H. Carter of Muscow and Reuben Lloyd of Davidson; George Lang of Indian Head banded 22 birds in 1923 but had his first recoveries from birds banded in 1924. As amateurs, these men banded what and when they could, in essentially random fashion at first, but later giving somewhat more attention to certain species.

On the map I have used a square to represent each "direct recovery", obtained the same year as the bird was banded, in its first migration. Each circle represents a recovery obtained in a subsequent year.

The Fish & Wildlife Service lists localities very accurately to the nearest ten minutes of latitude and longitude, each such "quadrant" representing in Saskatchewan an area of about 11 by 7 miles. Thus 532-1040 means 53° 20' north latitude and 104° 00' west longitude. This allows quick and accurate location on a map without the time-consuming process of locating place names.

---

A remarkably high recovery rate has been obtained for Red-tailed Hawks banded in Saskatchewan. For

example, R. H. Carter, Jr. had 16 recoveries from only 40 hawks banded, a rate of 40%. Philip Siemens of Hepburn banded 12 redtails and had four recoveries, or 33.3%. Nipawin banding of 29 redtails by Street and Matthews yielded eight recoveries, for a rate of 27.6%. Of the first 36 redtails I banded to 1959, there were five recoveries or nearly 14%. Likely the higher recovery rates in the earlier years reflected heavier shooting pressure, which has gradually decreased, perhaps in part due to education of the public as to the value of hawks. By scanning the table, one can see that 34 of 48 recoveries were by shooting, and this included almost all the hawks prior to 1940. Recovery rates of this magnitude are rarely encountered, except for Canvasback and Redhead ducks.

The other unusual feature, compared to other species, is the decreased number of "direct recoveries" and the corresponding increase in the number of redtails that live to a relatively advanced age. Note that the two Carters had two recovered at 14 years, one at 12 years, two at 11 years and three at seven years. These apparently include the records for longevity for this species: the redtail shot at Ethel, Louisiana after 13 years, 6 months, 20 days was listed in *The Ring*, the international journal of bird banding, in February 1963 as the oldest known banded bird of this species. Actually, J. R. Carter's bird shot at Lemberg, Saskatchewan, was slightly older: 13 years, 9 months, 29 days. (These birds are placed in the "14 year" category of the U.S. Fish & Wildlife Service on the basis of the calendar year; a bird shot January 2 may only be 8 months old, but is no longer "direct" and moves up into the "one year" category).



## RECOVERIES OF RED-TAILED HAWKS Banded IN SASKATCHEWAN

### Banded by John R. Carter, Muscow, Sask. (504-1035):

Banded June 30/29. Trapped mid-Jan./34 (5 yrs.) in Arkansas (360-0940).  
Banded June 30/29. Shot mid-Nov./36 (7 yrs.) in Mississippi (331-0902).  
Banded June 30/29. Shot Sept. 22/39 (direct) in North Dakota (481-0992).  
Banded July 2/39. Shot April 1/40 (1 yr.) in North Dakota (462-0964).  
Banded July 14/40. Shot March 6/45 (5 yr.) in Iowa (41x-092x).  
Banded July 14/40. Shot May 13/54 (14 yr.) Lemberg, Sask. (504-1031).

### Banded by R. H. Carter, Jr. Muscow, Sask. (504-1035) (40 banded):

Banded July 1/23. Shot Oct. 31/23 (direct) Randall, Iowa (421-0933).  
Banded June 29/24. Shot Jan. 17/38 (14 yr.) Ethel, La. (304-0910).  
Banded June 30/24. Found dead Aug. 15/41 (7 yr.) Balcarres, Sask. (504-1033).  
Banded June 30/24. Unknown; early Mar./36 (12 yr.) Rose, Kan., (374-0954).  
Banded June 20/26. Shot Jan. 23/37 (11 yr.) Burton, Texas (301-0963).  
Banded June 20/26. Shot Oct. 12/26 (direct) Butterfield, Minn. (435-0944).  
Banded July 3/27. Shot early Feb./34 (7 yr.) Iota, La. (302-0922).  
Banded July 3/27. Captured Nov. 24/27 (direct) Chelsea, Okla. (363-0952).  
Banded July 3/27. Shot Nov. 3/27 (direct) Brumley, Missouri (380-0922).  
Banded July 3/27. Shot early Jan./38 (11 yr.) Greenwood, Ark. (351-0941).  
Banded July 10/27. Shot Nov. 8/28 (1 yr.) Tulsa, Okla. (361-0955).  
Banded July 10/27. Shot Nov. 6/30 (3 yr.) Chetopa, Kansas (370-0950).  
Banded July 1/42. Shot March 31/45 (3 yr.) Hope, N.D. (471-0973).  
Banded July 4/48. Shot Feb. 21/54 (6 yr.) Longview, Texas (322-0944).  
Banded July 4/48. Shot Nov. 1/48 (direct) McCune, Kansas (372-0950).  
Banded July 7/59. Shot Aug. 17/59 (direct) Ft. Qu'Appelle, Sask. (504-1034).

### Banded by Philip Siemens, Hepburn, Sask. (523-1064): (12 banded)

Banded June 23/30. Shot Dec. 30/30 (direct) in Texas (294-0970).  
Banded July 7/31. Shot Nov. 1/31 (direct) in Iowa (423-0943).  
Banded July 7/31. Shot Jan. 24/32 (1 yr.) in Texas (281-0974).  
Banded Aug. 3/33. Shot Dec. 28/33 (direct) in Oklahoma (340-0953).

### Banded by Robert M. Blakeley, Canora, Sask. (515-1022):

Banded June 13/29. Shot Nov. 23/29 (direct) in Texas (292-0954).  
Banded June 13/29. Shot Feb. 13/32 (3 yr.) in Texas (284-0970).

### Banded by Mrs. F. Wickencamp, Stenen, Sask. (515-1022):

Banded June 14/33. Shot Oct. 15/33 (direct) in Texas (294-0952).

### Banded by C. Stuart Houston, near Yorkton, Sask. (505to511-1020to1024):

Banded at 511-1023, June 8/46. Shot Feb. 28/48 (2 yr) Kaplan, La. (300-0921).  
Banded at 511-1023, June 8/59. Found dead Mar. 25/60 (1 yr.) Lucedale, Miss. (305-0883).

Banded June 15/59. Shot Nov. 26/63 (4 yr.) McCrory, Ark. (351-0911).  
Banded July 1/59. Killed by auto Sept. 20/59 (direct) Russell, Man. (504-1011).

Banded July 1/59. Found dead April 18/60 (1 yr.) Churchbridge (505-1015).  
Banded June 29/60. Shot Dec. 23/60 (direct) in Louisiana (301-0920).  
Banded June 29/60. Shot Feb. 6/61 (1 yr.) Oxford, Alabama (333-0855).

### Banded by C. Stuart Houston near Ruddell, Sask. (523-1075):

Banded June 14/64. Unknown; hunting season/64 (direct) in Minn. (434-0942).

### Banded by Glen A. Fox near Cando, Sask. (524-1075):

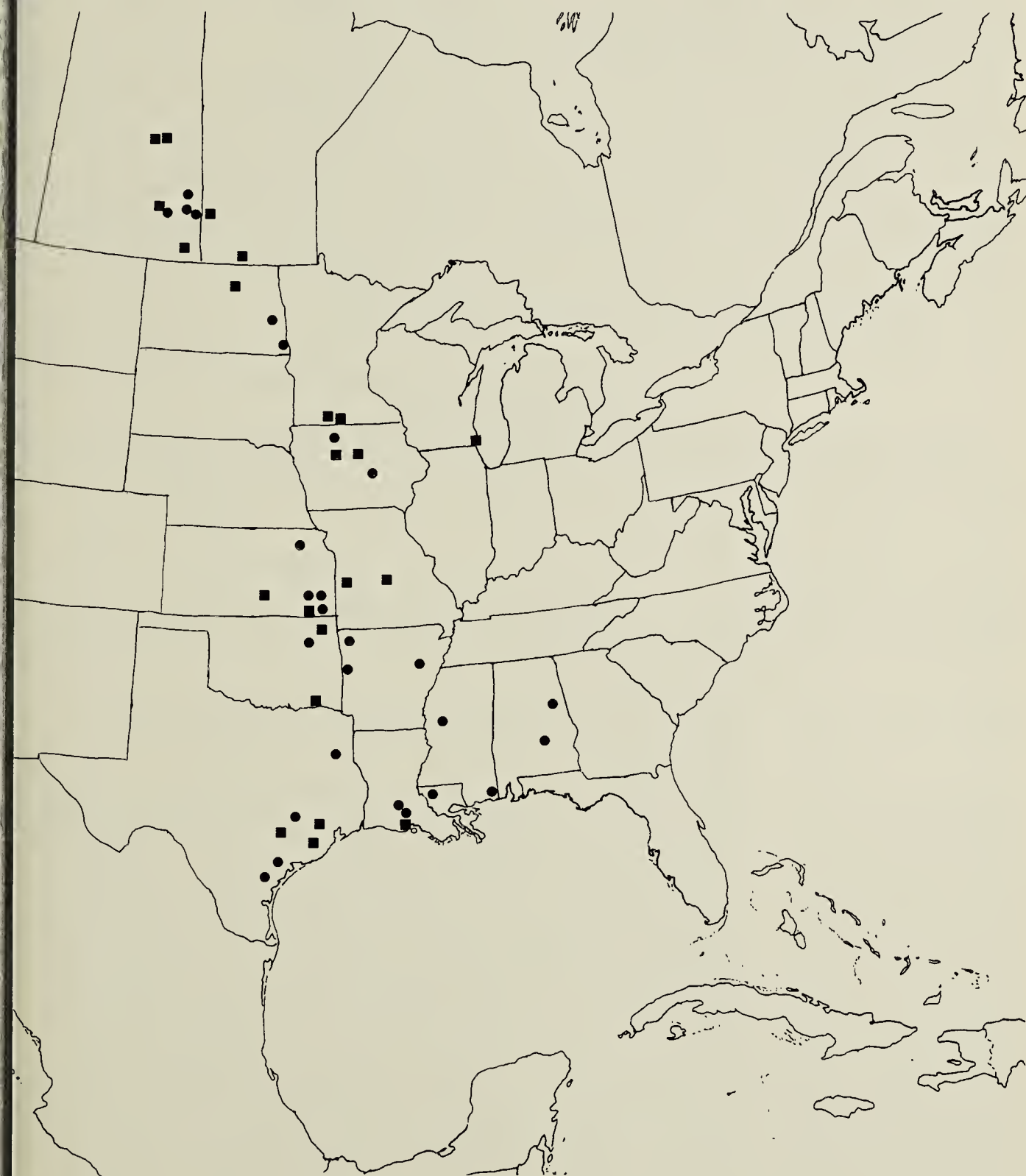
Banded Aug. 11/60. Found dead Jan. 17/61 (1 yr.) in Alabama (322-0861).

### Banded by Maurice G. Street, Nipawin (532-1040 and 531-1040) (22 banded):

Banded June 28/46. Shot before Aug. 3/46 (direct) Nipawin, Sask. (531-1035).  
Banded June 30/46. Shot mid-June/47 (1 yr.) Emmett Co., Iowa (431-0944).



banded June 16/47. In fox trap Nov. 11/47 (direct) Kenosha, Wis. (423-0874).  
 banded June 27/47. Shot Aug. 17/47 (direct) Nipawin, Sask. (532-1040).  
 banded June 27/47. Shot Dec. 16/48 (1 yr.) Chanute, Kans. (374-0953).  
 banded July 14/50. Shot Nov. 12/50 (direct) Metz, Missouri (380-0942).  
 banded, Walter & Billy Matthews, Nipawin (531-1040 and 532-1040) (7 banded):  
 banded June 20/50. Found dead before Oct. 13/50 (direct) Neelin, Man.  
 (491-0992).  
 banded July 1/52. Unknown, before Jan. 20/53 (1 yr.) Onaga, Kan.  
 (393-0961).  
 banded by M. Ross Lein, Moose Mountain, Sask. (495-1023 and 494-1022):  
 banded June 22/65. Skeleton found before Oct. 18/65, Carlyle, Sask. (493-1021).  
 banded June 23/65. Caught by hand before Dec. 4/65 in Kansas (375-0975).



Recoveries of Red-tailed Hawks banded in Saskatchewan

Note: Squares represent direct recoveries (same year). Circles represent subsequent years.



# RECOVERIES OF BLACK-CROWNED NIGHT HERONS BANDED IN SASKATCHEWAN

by **C. Stuart Houston**, 863 University Drive, Saskatoon

Early banding of Black-crowned Night Herons in Saskatchewan yielded a very high number of recoveries, compared to later banding. The late George H. Lang banded this species almost yearly from 1924 to 1939 at "Dry Lake", the easternmost of the two Strawberry Lakes south of Indian Head. His biggest years were 1925, when he banded 110; 1926, when he banded 149; and 1932 when he banded 138. Of the first 609 banded up to the end of 1932, there were 24 recoveries, a rate of 3.9%, but from the last 250 banded there was not a single recovery! My personal banding of 183 night herons with four recoveries, represents a recovery rate of 2.2%. Note

how the earlier recoveries include many birds shot, whereas in more recent years such non-game birds seem less likely to be shot illegally.

The oldest Saskatchewan bird was nearly nine years old when it was electrocuted and found hanging from a power pole.

It is of interest that in 1964, Bob Nero found Black-crowned Night Herons nesting between the two Strawberry Lakes. I banded 44 that year, but to date have had no recoveries from them. Mr. Lang's daughter reported that their colony was no longer present at "Dry Lake" in the early 1940's.

## RECOVERIES OF BLACK-CROWNED NIGHT HERONS BANDED IN SASKATCHEWAN

(in the following table, 532-1040 means 53° 20' north and 104° 00' west)

**Banded by Judge J. A. M. Patrick at Foam Lake, Sask. (514-1033):**

Banded July 4/29. Shot hunting season/34 (5 yrs.) near Quinton, Sask. (512-1042).

Banded July 4/29. Shot Oct. 20/29 (direct) in Texas (273-0993).

**Banded by George H. Lang at Strawberry Lakes (502-1034):** (859 banded)

Banded June 18/24. Electric pole, May 8/33 (9 yrs.) 30 mi. N. Borger, Texas (360-1012).

Banded June 18/24. Shot Dec. 1/24 (direct) Hidalgo Co., Texas (26x-097x).

Banded June 18/24. Found dead early May/26 (2 yrs.) Dunseith, N.D. (484-1000).

Banded June 23/24. Injured Nov. 27/24 (direct) Deerfield, Florida (261-0800).

Banded July 4/24. Found dead mid-May/27 (3 yrs.) Oakes, N.D. (460-0980).

Banded July 4/24. Shot Sept. 21/24 (direct) Valley City, N.D. (465-0975).

Banded July 4/24. Shot Sept. 21/24 (direct) in state of Vera Cruz, Mexico.

Banded July 15/25. Found dead Oct. 11/25 (direct) Adair, Sask. (502-1031).

Banded July 15/25. Found dead Mar. 9/32 (7 yrs.) Edenwold, Sask. (503-1041).

Banded July 15/25. Found dead July/25 (direct) Francis, Sask. (500-1035).

Banded July 15/25. Found dead Oct. 16/32 (7 yrs.) Carman, Ill. (404-0910).

Banded July 15/25. Shot Oct. 30/25 (direct) Carroll Co., Ark. (36x-093x).

Banded June 12/26. Shot Sept. 15/28 (2 yrs.) Penzance, Sask. (510-1052).

Banded June 12/26. Shot early Oct./28 (2 yrs.) Calhoun, Georgia. (342-0845).

Banded June 12/26. Shot Oct. 19/26 (direct) Throckmorton, Texas (331-0991).

Banded June 26/26. Shot Oct. 8/26 (direct) St. Joseph, Missouri (394-0945).

Banded June 26/26. Shot Oct. 9/26 (direct) St. Joseph, Missouri (394-0945).

Banded June 26/26. Shot Nov. 1/26 (direct) Fort Smith, Okla. (352-0943).

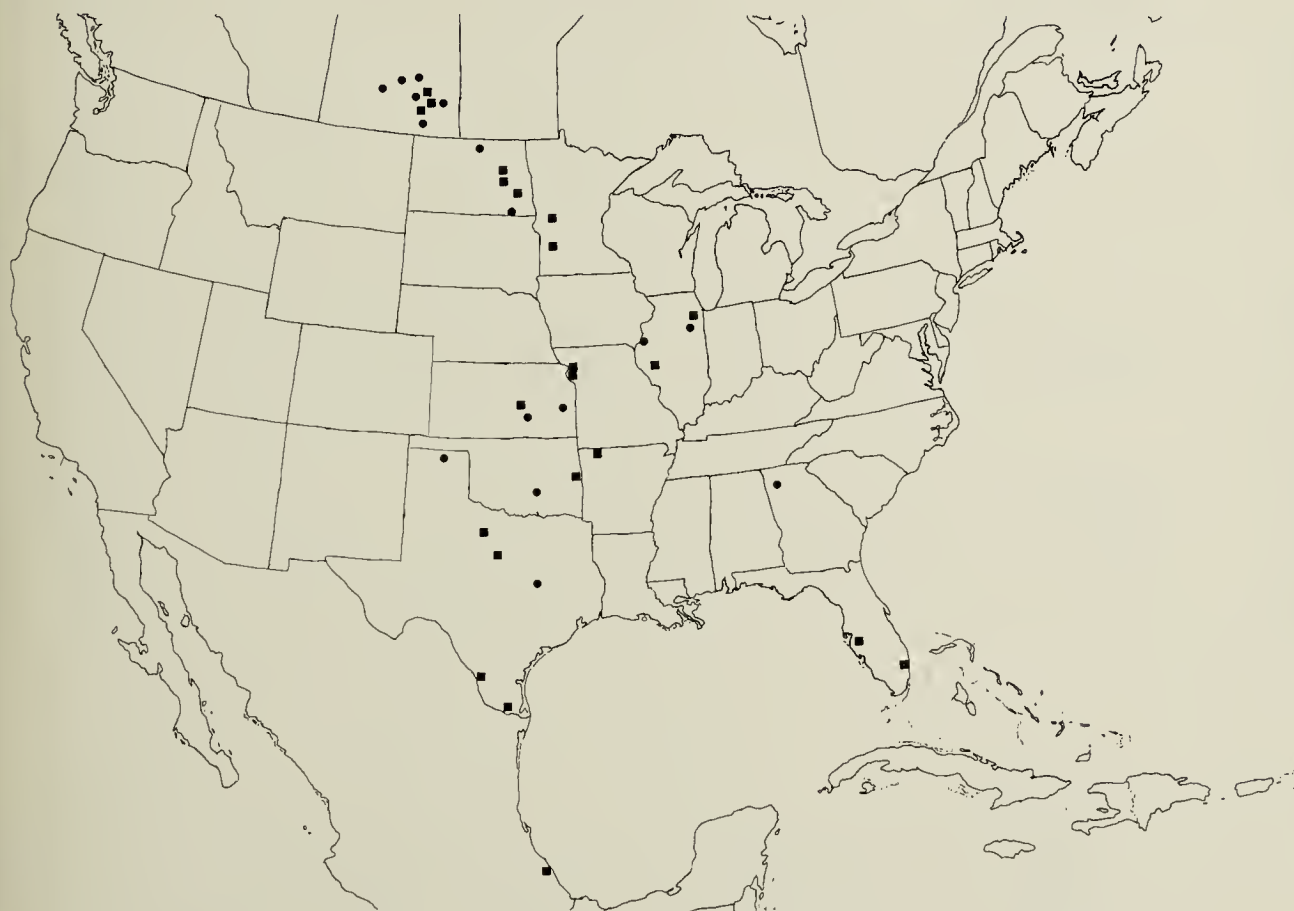
Banded June 11/27. Found dead June 22/28 (1 yr.) Strawberry Lakes, Sask. (502-1034).



- anded June 24/28. Shot Oct. 7/28 (direct) Valley City, Ill. (394-0903).  
 anded June 24/28. Shot April 17/34 (6 yrs.) Central Butte, Sask. (504-1063).  
 anded June 23/29. Found dead Aug. 22/29 (direct). Ft. Qu'Appelle, Sask. (502-1034).  
 anded June 30/29. Shot Sept. 25/29 (direct) Warwick, N.D. (475-0984).  
 anded July 11/31. Trapped and released Oct. 8/31 (direct) McPherson, Kans. (382-0973).  
 anded July 11/31. Caught in fish net, Oct. 12/31 (direct) Eastland, Texas (322-0984).  
 anded July 9/32. Caught by fish hook, May 1/37 (5 yrs.) Marlin, Texas (311-0965).  
 anded July 9/32. Found dead Oct. 26/32 (direct) Montevideo, Minn. (445-0954).  
 anded July 9/32. Caught in trap Nov. 20/32 (direct) Romeo, Ill. (413-0880).  
 anded July 9/32. Found dead July/42 (10 yrs.) Weyburn, Sask. (493-1035).  
 anded July 9/32. Killed by auto Oct. 23/32 (direct) Sarasota, Florida (273-0821).  
 anded July 12/32. Found dead Oct. 13/32 (direct) Bordulac, N.D. (472-0985).  
 anded by C. Stuart Houston, Yorkton, Sask. (511-1023 and 510-1022) (183 banded):  
 anded June 18/44. Found dead before Sept. 16/52 (8 yrs.) Wichita, Kans. (375-0972).  
 anded July 2/44. Found dead Oct. 12/47 (3 yrs.) Welda, Kans. (381-0951).  
 anded July 25/46. Found dead Oct. 10/47 (1 yr.) Morris Ill. (412-0882).  
 anded June 9/55. Killed by oil before Oct. 18/56 (1 yr.) Asher, Okla. (345-0965).

anded by Fred G. Bard, at Davidson, Sask. (511-1055):

- anded July 6/36 Found dead Nov. 7/36 (direct) in Minnesota (455-0955).



Recoveries of Black-crowned Night Herons banded in Saskatchewan

Note: Squares represent direct recoveries (same year). Circles represent subsequent years.



COOPERATIVE SPRING MIGRATION STUDY, 1967

Compiled by <b>MARY HOUSTON</b> 863 University Drive Saskatoon.		DILKE J. B. Belcher	ERINFERRY Mrs. E. A. Dodd	ESK R. F. Klatt	INDIAN HEAD L. Scott, M. Skinner J. Willetth	KELVINGTON Steve Waycheshen	KENASTON P. Lawrence Beckie	QU'APPELLE VALLEY E. M. Callin	RAYMORE Wayne Harris	REGINA Regina N.H.S.	SASKATOON Saskatoon N.H.S.
Whistling Swan	Ap 27			My 8	Ap 9		My 4	My 12	Ap 13	Ap 14	Ap 18
Canada Goose	Mr 30	Ap 16	Ap 16	Ap 11	Mr 10	Ap 6	Ap 27	Ap 8	Ap 8	Ap 8	Ap 14
Mallard	Ap 12	Ap 22	Ap 22	Ap 17	Mr 29	Ap 24	Ap 10	Ap 11	Ap 11	Ap 8	Ap 22
Pintail	Ap 11	Ap 22	Ap 22	Ap 16	Ap 8	Ap 24	Ap 13	Ap 11	Ap 11	Ap 8	Ap 17
Marsh Hawk	Mr. 23	Ap 13	Ap 13	Mr 28	Mr 25	Ap 15	Mr 23	Mr 26	Ap 10	Mr 30	Ap 20
Killdeer	Ap 11	Ap 10	Ap 10	Ap 25	Ap 8	Ap 14	Ap 11	Mr 29	Ap 10	Mr 23	Ap 13
Common Snipe		My 16	My 16		My 9	My 1	My 12	Ap 12	Ap 18	Ap 24	Ap 22
Mourning Dove	My 20	Ap 18	Ap 18	My 6	Ap 7	Ap 18	Ap 27	Ap 16	Ap 22	Ap 17	Ap 21
Common Nighthawk		My 20	My 20		Jn 6	My 29		My 26	My 25	Jn 2	My 26
Ruby-throated Hummingbird					My 29	My 27		My 25	Jn 4		
Yellow-shafted Flicker	Ap. 21			Ap 12	Ap 16	Ap 17	Ap 24	Ap 18	Ap 11	Ap 11	Ap 21
Eastern Kingbird	My 22	Jn 10	Jn 10	My 28	My 21	My 23	My 24	My 23	My 24	My 17	My 18
Eastern Phoebe		Ap 26	Ap 26			Ap 26		Ap 28	My 1	Ap 10	Ap 20



Barn Swallow	My 14	My 16	My 16	My 12	My 13	My 14	My 21	My 8	My 10	My 10
Purple Martin		My 12		My 21	My 16		My 24	Jn 3	My 9	My 27
Common Crow	Mr 21	Mr 27	Mr 21	Mr 21	Mr 23	Mr 25	Mr 19	Mr 21	Mr 21	Ap 17
House Wren		My 30	Jn 6	My 19	My 18		My 20	My 22	My 20	My 21
Catbird				Jn 2	My 23		My 24	My 25	My 23	My 26
Brown Thrasher	My 21	My 16	My 21	My 28	My 23	My 22	My 17	My 23	My 15	My 21
Red-eyed Vireo				My 27	My 25		My 28	Jn 4	My 27	Jn 2
Black-and-white Warbler		My 28		My 27			My 24	My 23	My 11	
Tennessee Warbler					My 22		My 23			My 22
Yellow Warbler	Jn 1			M 12	My 24	My 16	My 21	My 22	My 17	My 13
Myrtle Warbler		Ap 16		Ap 27	Ap 18	Ap 25	Ap 25		Ap 16	Ap 20
Blackpoll Warbler				My 27	My 26		My 27		My 12	My 22
Ovenbird					My 25		My 27		My 20	My 27
American Redstart					My 26	My 22	My 24		My 25	My 27
Bobolink	My 24			Jn 1	My 26		My 25			My 27
Red-winged Blackbird	Ap 5	My 16	Ap 27	Ap 9	Ap 17	Ap 11	Ap 10	Ap 7	Ap 7	Ap 17
Baltimore Oriole	My 23		My 26	My 20	My 23	My 23	My 12	My 24	My 16	My 22
Rose-breasted Grosbeak		My 25		My 27	My 21		My 27	My 21	My 16	My 21
American Goldfinch	My 30			My 21	My 27		My 23	My 24	My 22	My 23
Slate-colored Junco	Mr 26	Ap 8	Ap 11	Mr 24	Ap 1	Mr 27	Mr 23	Mr 15	Mr 23	Ap 8
Chipping Sparrow		My 16		My 12		My 16	My 5	Ap 19	My 13	My 9
White-crowned Sparrow		My 13		My 8		My 6	My 6	My 1	Ap 22	My 7
White-throated Sparrow	My 7	My 16		My 12	My 11	My 11	Ap 19	My 2	Ap 23	My 6



COOPERATIVE SPRING MIGRATION STUDY, 1967

Compiled by <b>MARY HOUSTON</b> Saskatoon.	SHEHO Wm. Niven	SKULL CREEK S. A. Mann	SOVEREIGN Mrs. Geo. Winny	SPIRIT LAKE Wm. Anaka, J. Gunn	STEEP CREEK Glen F. Love	TULLIS Mrs. E. C. Boon	WOLSELEY Donald Hayward	YELLOW CREEK Bohdan Pylpec		STETTLER, ALTA. Lloyd M. Lohr
Whistling Swan	My 5		My 3	My 6	My 2	Ap 24	Ap 16	My 12	-----	Ap 25
Canada Goose	Mr 28	Mr 23	Ap 9	Mr 24	Ap 23	Ap 7	Ap 10	Ap 11	-----	Ap 9
Mallard	Ap 15	Mr 26	Ap 13	Ap 14	Ap 16	Ap 10	Ap 9	Ap 24	-----	Ap 12
Pintail	Ap 15	Mr 28	Ap 26	Ap 11	Ap 26	Ap 10	Ap 10	Ap 24	-----	Ap 17
Marsh Hawk	Ap 7	Mr 23	Ap 10	Ap 3	Ap 16	Mr 28	Mr. 25	Ap 7	-----	Mr 26
Killdeer	Ap 11	Mr 23	Ap 11	Ap 11	Ap 16		Ap 10	Ap 13	-----	Ap 7
Common Snipe	My 8	Ap 20		My 7				My 14	-----	My 5
Mourning Dove	Ap 26	Ap 25		Ap 14	Ap 10	My 21	My 2	Ap 16	-----	My 28
Common Nighthawk	My 26	Jn 21		Jn 1	Jn 4		My 31	Jn 5	-----	
Ruby-throated Hummingbird	Jn 5			My 23				My 28	-----	
Yellow-shafted Flicker	Ap 18	Ap 8	My 1	Ap 14	Ap 25		Ap 13	Ap 20	-----	Ap 30
Eastern Kingbird	My 22	My 19	My 26	My 23	M 24		My 23	My 25	-----	My 25
Eastern Phoebe	Ap 25			Ap 21				Ap 24		



Barn Swallow	My 13	My 16	My 25	My 12	My 16	My 14		My 18	-----	My 19
Purple Martin	My 12			My 18			Jn 6	My 14	-----	My 7
Common Crow	Mr 23	Mr 23	Mr 24	Mr 22	Mr 11	Mr 21	Mr 20	Mr 23	-----	Mr 23
House Wren	My 21	My 24		My 20			My 24	My 23	-----	
Catbird	My 26			My 24	My 23	My 30	Jn 1	Jn 17	-----	My 28
Brown Trasher	My 22	My 20	My 24	My 16		My 21	My 18		-----	
Red-eyed Vireo	My 23	Jn 5		My 25			My 25	My 29	-----	My 26
Black-and-White Warbler										
Tennessee Warbler	My 22			My 18				My 22	-----	
Yellow Warbler	My 22	My 12	My 22	My 22	My 21		My 24	My 21	-----	My 23
Myrtle Warbler	Ap 25	Ap 23	My 11	Ap 13	Ap 25	My 21		Ap 20	-----	
Blackpoll Warbler								My 21	-----	
Ovenbird		Jn 13		My 26						
American Redstart					My 25				-----	
Bobolink	My 20	Jn 1		Jn 2						
Red-winged Blackbird	Ap 11	Ap 8	Ap 17	Ap 10	Ap 24	Ap 28	Ap 11	Ap 25	-----	Ap 23
Baltimore Oriole	My 23	My 30	My 22	My 23	My 21	My 30	My 25	My 24	-----	My 22
Rose-breasted Grosbeak	My 17			My 19	My 19			My 22	-----	
American Goldfinch	My 21	My 30	My 21	My 28		My 23	My 26	My 28	-----	Jn 4
Slate-colored Junco	Mr 27	Mr 27	Ap 9	Mr 24	Ap 16	Ap 28	Mr 26	Mr 23	-----	Mr 28
Chipping Sparrow	My 21	My 20	My 11	My 16	My 3		My 18	My 19	-----	
White-crowned Sparrow	My 7	Ap 22	My 11	My 8	My 8	My 12		My 26	-----	My 17
White-throated Sparrow	My 13		My 7	Ap 28			My 12	My 6	-----	My 18

# SAVE THE WHOOPING CRANE

The cover picture for this issue shows a striking trio of Whooping Cranes standing in a stubble field in southern Saskatchewan in a late April snowstorm. During the snow, wildlife officials, concerned for their welfare, saw that feed was put out for them and that they were able to continue their flight to the north in safety.

Each year on two occasions—during spring and fall migration—a special plea is made for safe passage for the Whooping Cranes. As they pass through the Canadian prairies and the midwestern States again this autumn, the urgent plea is repeated.

This year a new programme has been put into effect in a further effort to save the Whooping Crane from extinction. The aim of this programme is to take eggs from the nesting grounds in Wood Buffalo National Park to be hatched artificially so that the young can be reared to provide a captive breeding flock from which birds can later be released to augment the wild population.

In early June, 1967, prior to the appearance of any young on the breeding grounds, a team of Canadian and United States biologists arranged to pick up eggs from six nests and fly them to a special rearing station at Patuxent, Maryland. CWS biologist Ernie Kuyt, known to *Blue Jay* readers as a contributor to the magazine and as one of the Society's directors, waded out to the nests from a helicopter that had landed carefully nearby. From each clutch of two eggs, one egg was taken, and later field-checking has established that the taking of these eggs did not affect the normal hatching of the remaining eggs. Five of the six eggs taken hatched successfully at Patuxent, one of these being a young bird with a weak leg joint which responded to treatment whereas it would have perished in the wild.

The plan to start a captive breeding flock of Whooping Cranes was imple-

mented this year only after long consideration by Canadian and United States wildlife biologists. As early as 1961, when the Whooping Crane Conservation Association was established, that organization of interested people had expressed the belief that captive propagation was the only salvation for the Whooping Crane. A few years later, the U.S. Fish and Wildlife Service and the Canadian Wildlife Service issued a joint proposal to increase the Whooping Crane population by collecting a limited number of eggs from nests in Canada in wet years when experience has shown the mortality of the young to be highest. However, they did not wish to rush into this programme without adequate preliminary study. In the meantime the U.S. Government had made grants to the Bureau of Sport Fisheries and Wildlife for its special project of protecting rare and endangered species, and experiments were being carried on with Sandhill Cranes at the Patuxent Wildlife Research Center. As a result of these studies, the plan to take eggs was finally put into effect this year and the long term project of raising a captive flock is now under way.

It is therefore of special interest to us to learn that Mr. Fred Bard, Director of the Saskatchewan Museum of Natural History, has been chosen President of the Whooping Crane Conservation Association for 1968. Membership in this association is invited from all people interested in helping to save the Whooping Crane. Individual memberships at \$3.00 per annum are available from the Chairman of the Membership Committee, at the following address:

Mr. C. S. Williams  
17 A Amanda St.  
Orangeville, Ontario.

Three dollars contributed to this cause will help support the publicity and the research necessary to protect our Whooping Cranes.





Photo by Luther Goldman  
Courtesy United States Department of the  
Interior, Fish and Wildlife Service

Adult Whooping Crane on wintering grounds  
at Aransas National Wildlife Refuge, Texas



# SOME INTERESTING BIRD RECORDS FROM THE PAS, MANITOBA

by **Sam Waller**, The Little Museum, The Pas, Manitoba

Because of the close proximity of The Pas to the Saskatchewan border it has been suggested that I give some records of uncommon or unusual birds that have appeared in this area in the last few years, some of which have been substantiated by specimens.

**Common Egret.** Harold Wells, a competent observer, saw a white heron, possibly a Common Egret, on July 24, 1966 at Reader Lake, and possibly the same bird at Saskaram Lake in September. It flew into a tall elm tree and was very wary and difficult to approach. Others saw the bird, and we will watch for it again this year.

**Ross' Goose.** In my time two of these have been recorded at The Pas and one was sent to the Manitoba Museum about 1957 (it is now a mounted specimen).

**Wood Duck.** There is reason to believe they are slowly increasing in numbers. The first record was a dried head, given me by one of my school pupils at Cedar Lake, whose father, Chief Donald Easter, had shot it in September, 1951. Cedar Lake is about 56 miles southwest of The Pas as the crow flies, but it is now inundated by the waters of the Grand Rapids Dam. A second specimen, a beautiful male that had walked into a muskrat trap, was brought to me on May 4, 1957. When I moved back from Cedar Lake to live in The Pas, I examined two Wood Ducks shot by hunters in season, but neither would have made good study skins.

**Oldsquaw.** A putrid specimen was brought to me on September 26, 1947 by Ged Reader of Reader Lake, nine miles north of The Pas. It was made into a fair study skin and is now in the Little Museum (my private museum, always open to the public).

**Harlequin Duck.** Two were shot by an Indian on September 15, 1950; one is in the collection of the Little Museum and the other is in the Manitoba Museum.

**American Avocet.** Two of these birds were seen by Harold Wells late in May, 1962, but they were not collected and no pictures were taken for positive record.

**Glaucous Gull.** A male was taken at Reader Lake on October 15, 1946 by Ged Reader and is a study skin in the Little Museum. It was positively identified by James L. Baillie of the Royal Ontario Museum, Toronto.

**Starling.** Starlings were long ago recorded as far north as the port of Churchill, but on August 26, 1965 a dead bird was discovered in a chimney of an abandoned Hudson's Bay post at Duck Lake, 140 miles northwest of Churchill, by biologist Don Miller and brought to The Pas where it was preserved by chemicals as it was too mummified to skin.

**Summer Tanager.** One was picked up by water control officer Harvey Anderson on May 25, 1966, who found the bird dead on the shore of Rahl's island and the Saskatchewan River adjacent to the town of The Pas. It was brought to me later by two conservation officers, Eddie Engen and Bill Moshenko, but I had never seen the species before and could not identify it positively. I prepared it as a study skin and sent it to W. Earl Godfrey at Ottawa, who identified it as a Summer Tanager, a male assuming first nuptial plumage, referable to the race *Piranga rubra rubra*, the first record for Canada west of southern Ontario. Godfrey reported this record in the *Canadian Field-Naturalist* (80:254), and this record is also mentioned in Godfrey's new *Birds of Canada* (1966).



# RECORD OF WHITE WING-BARRING IN COMMON CROW

by **Spencer Sealy**, Department of Zoology, University of British Columbia,  
Vancouver 8, B.C.



Figure 1. Right wing of Common Crow (U.B.C.M.Z. No. 13296) showing white wing markings in the primaries, secondaries and greater primary coverts.

Several years ago I had occasion to observe white wing-barring in the Common Crow (*Corvus brachyrhynchos*). This phenomenon has recently been reported by Short and Laybourne, 1967, *Wilson Bull.*, 79:113-114. Their two records of white wing markings in the Common Crow, one a sight record and one a specimen, were obtained near Rockville, Montgomery County, Maryland, on October 2, 1965. Having read Short and Laybourne's article, with its discussion of the possible causes of white wing markings in crows, I should like to report another instance of this phenomenon, observed in Saskatchewan.

On August 25, 1962, two miles south of Battleford, Saskatchewan, a male Common Crow with white wing markings was observed and subsequently collected. The bird, an immature as indicated by its worn primaries (Emlen, 1936. *Condor*, 38:99-102) was not prepared as a study skin, but the right wing was removed, spread, and dried (U.B.C. Mus. Zool. No. 13296). Except for white in the remiges and greater primary coverts of both wings,

it was normal in colour throughout. The white markings were similar and symmetrical in both wings. The specimen described by Short and Laybourne (*op. cit.*), also an immature, was similarly marked except that it did not exhibit white in the greater primary coverts. On the Battleford specimen white occurs mainly on the inner vane of primaries 1 to 10, secondaries 1 to 8, and about equally on each vane of greater primary coverts 1 to 8 (Figure 1). The outer vane of primaries 1 to 3 and secondaries 1 to 5 show small white patches near the base and at a point about three-fourths down the length of the feathers; the outer vane of primaries 4 to 9 exhibit white along the rachis over the middle half of the feathers (Figure 1). Secondaries 6 and 7 show small white patches at the base of the feathers in the outer vane. The white on the outer primaries 5 to 8 is longer relative to that on the other primaries and the secondaries; however, in general (as in the Maryland specimen) the overall white pattern in the wing is that of an interrupted broad bar, which is visible when the wing is spread.



# THIRD RECORD OF GLAUCOUS GULL IN ALBERTA

by **Wayne Smith**, 8220 Elbow Drive, Calgary

A second-year Glaucous Gull was seen on May 14, 1966, at Beaverhill Lake, Alberta, by Mr. and Mrs. Bruce Sparks, Kevin van Tighem, Richard Klauke, Bob Ipema, Bob Masters, some members of the Edmonton Bird Club and myself. Beaverhill Lake is about 50 miles east of Edmonton. The weather was cold, windy and rainy.

The Glaucous Gull was identified by its whiteness and by its large size. There appeared to be no grey or brown in the primaries. Sitting beside the second-year bird was a slightly smaller first-year gull. Identity of the first-year bird remained uncertain because identifying features such as bill colour and lighter primaries were not clearly seen.

The two previous Alberta records of Glaucous Gulls in Alberta from *Birds of Alberta* (Salt and Wilk, 1958 and 1966) are:

1. an immature shot west of Lacombe in 1915, preservd in the Provincial Museum in Edmonton.
2. "another . . . caught in a coyote trap near Youngstown in November 1940. This specimen is not preserved".

It is of interest to note that on May 8, 1966, a gull that was thought to be a Glaucous Gull or a Glaucous-winged Gull was seen within five miles of Saskatoon by J. E. Black (Saskatoon Bird Review, p. 15, June 20, 1966).

## SCARLET TANAGER, A SURPRISE VISITOR AT NORWAY HOUSE, MANITOBA

by **S. C. Fowke**, Norway House, Manitoba

One of the joys of our bird watching at Norway House is discovering a new species in our area. We were therefore delighted this past spring with the arrival of several interesting strangers and the comparative abundance of some of the less common migrants.

On May 7, 1967 we were pleased to see an old friend from the prairies come to visit us in the "bush" in the person of a Western Meadowlark. It stayed all one evening and we had ample opportunity to study it closely. I checked and found that no one could remember seeing one here before.

Then on May 13 we were again surprised and pleased to hear that Mr. D. Allen, Conservation Officer at Norway House, had seen a Mourning Dove. He and one of his workers were able to observe this bird closely several times. Again no one could remember seeing this species here before.

A cold front moved in on May 18 and on May 19 there were hundreds of Harris' Sparrows, dozens of Horned Larks and numerous White-crowned and White-throated Sparrows. This influx was really a welcome change from the small numbers of each of these species that we usually see here in the spring.

The crowning touch of spring surprises came on May 29, 1967 at 9:30 a.m. when I sighted a male Scarlet Tanager while on a morning birding walk. When I was having a rest, I thought I saw a bit of surveyor's coloured ribbon up in a tree about 50 yards away. When I raised my binoculars to have a closer look the bird flew, and as I followed it with the glasses I knew at once that it was a male Scarlet Tanager. It landed again about 100 yards away where I observed it carefully for about one minute. I saw it very clearly and



there was no mistaking its identity. It flew away and I could not find it again. That was a thrill I will not forget for a long time.

A pleasant finale to the spring surprises was seeing a pair of American Goldfinches around our yard on July 6. These birds may not be uncommon here, but we have never seen them before.

In many ways this past spring was a late and discouraging one, but the bad weather was more than made up for by our unusual bird migration. I would be very interested to know how far north these species have been recorded in Saskatchewan and Alberta.

[EDITOR'S NOTE: Salt and Wilk (1966. *Birds of Alberta*) cite only one authenticated record of the Scarlet

Tanager for Alberta, that of a female that struck a window in Calgary on November 2, 1964, but they mention that sight records are occasionally reported. In Saskatchewan, the farthest north records of the species are sight records from Yorkton (1950), Young (1963), and Saskatoon (1965). See Margaret Belcher's article "The status of the Scarlet Tanager in Saskatchewan" (*Blue Jay* 23:117-119) and the report by Gollop, Slimmon and Folker "Some 1965 bird records for the Saskatoon district" (*Blue Jay*, 24:76-78).

Discussion of this Norway House record of the Scarlet Tanager with Dr. Robert W. Nero, now at the Manitoba Museum of Man and Nature, confirms that this must be considered the northernmost record known for the species.]

## ANNUAL MAY BIRD COUNT, SASKATOON

by J. F. Roy, 120 Maple Street, Saskatoon

On May 27, 1967, 29 observers in six groups established a new record of 145 species seen in a single day in the Saskatoon study area, a square block consisting of 100 townships (3,600 square miles) centering on Saskatoon. The previous high had been set last year when 140 species were observed. It was an excellent day for field observations, with mostly sunny skies and the temperature ranging from 45° to 74°. Apart from a brief period of gusty southeast winds between noon and 2:00 p.m., the winds remained light.

Once again the southeast proved to be the most rewarding corner ornithologically; here, groups led by J. B. Gollop and J. A. Wedgwood observed 118 species. The southwest produced 113 species, the northeast, 102, and the northwest 98. Among the highlights of the count were a Common Loon on Moon Lake; a flock of eight late Whistling Swans on Rice Lake and one individual in the northeast; two separate sightings of the Piping Plover; a pair of Buff-breasted Sand-

pipers near Buffer Lake; and two new breeding records for the Saskatoon region: the Common Goldeneye and the Blue Jay, both nests being discovered by Jim Slimmon in the northwest sector. The Chukar was found near the Forestry Farm sitting on top of a barn.

Once again warbler numbers proved disappointing, only 11 species being identified. The count was just a few days too late to include the migrant sparrows. No White-crowned, Lincoln, Fox, Swamp or Harris' Sparrows were recorded, and only single individuals of the White-throated Sparrow and the Slate-coloured Junco.

On the day following this count, a new species for the district (McCown's Longspur) was found in an area not visited on May 27. This suggests that more thorough coverage, requiring more independent parties with at least one reliable observer in each, is required for a more complete enumeration of the birds present on the May count.

Species by region for Annual May Day Count, Saskatoon, May 27, 1967

	NW	NE	SE	SW		NW	NE	SE	SW		NW	NE	SE	SW					
Common Loon				x	Am Coot	x	x	x	x	Short-ear Owl	x			Yellow Wrblr	x	x	x	SW	
Red-nk. Grebe				x	Piping Plov		x		x	C Nighthawk		x		Cape M Wrblr			x	SE	
Horned Grebe	N	x	x	x	Killdeer	x	x	x	x	B Kingfisher				Myrtle Wrblr			x	NE	
Eared Grebe	x	x	x	x	Gldn Plover	x				Y-sh Flicker	N	x	x	x	Blkpll Wrblr	x		x	SW
West Grebe	x	x	x	x	Bl-b Plover	x	x	x	x	Y-b Sapscker					Ovenbird			x	SE
Pied-b Grebe	x	x	x	x	Ru Turnstone		x			Hairy Woodp	x				N Waterthrsh			x	NE
Gr Bl Heron	x				L-b Curlew			x		Downy Woodp					Yellowthroat			x	SW
Am Bittern		x	x		Upland Plover	x	x	x		E Kingbird	x	x	x	x	Wilson Wrblr			x	SE
Wh Swan		x		x	Spot Sandp	x	x	x	x	W Kingbird	x	x	x	x	Am Redstart			x	NE
C Goose		x			Solit Sandp			x		E Phoebe	x				House Sparrow	x		x	SW
Mallard	x	x	x	x	Willet	x	x	x	x	Lst Flycatch	x	x	x	x	Bobolink			x	SE
Gadwall	x	x	x	x	Lesser Ylgs	x	x	x		Horned Lark	x	x	x	x	W Meadowlark	x		x	NE
Pintail	x	x	x	x	Pector Sandp	x	x	x	x	Tree Swallow	x	x	x	x	Y-h Blkbird	x		x	SW
Gr-wgd Teal	x	x	x	x	Wh-r Sandp	x	x	x	x	Bank Swallow	x	x	x	x	R-w Blkbird	x		x	SE
Bl-wgd Teal	x	x	x	x	Baird Sandp	x	x	x		Barn Swallow	x	x	x	x	Balt Oriole	x		x	NE
Am Widgeon	x	x	x	x	Least Sandp		x	x		Purple Martin					Brwr Blkbird	x		x	SW
Shoveler	x	x	x	x	Dunlin			x		Blue Jay	N				Com Grackle	x		x	SE



Redhead	x	x	x	x	x	Dowitcher	x	x	x	B-b Magpie	x	x	N	x	Br-h Cowbird	x	x	x	x
Ring-nk Duck			x	x	x	Stilt Sandp	x	x	x	Common Crow	N	x	N	x	R-br Grsbeak			x	x
Canvasback	x	x	x	x	x	Semipa Sandp	x	x	x	B-c Chickadee			x	x	Am Goldfinch	x	x	x	x
Lesser Scaup	x	x	x	x	x	Buff-b Sandp	x			House Wren	N	x	x	x	Ruf-s Towhee	x	x	x	x
C Goldeneye	N				x	Marbl Godwit	x	x	x	L-b Msh Wren			x	x	Lark Bunting	x	x	x	x
Bufflehead			x	x	x	Sanderling	x	x	x	Catbird		x	x	x	Savan Sparrow	x	x	x	x
Ruddy Duck	x	x	x	x	x	Am Avocet	x	x	x	Br Thrasher		x	x	x	Baird Sparrow	x	x	x	x
Sh-sh Hawk	x	x				Wils Phalar	x	x	x	Robin		N	x	N	LeCnt Sparrow		x	x	x
Cooper Hawk			N			N Phalarope	x	x	x	Swain Thrush		x	x	x	Sh-t Sparrow				x
R-tail Hawk	x		x	x	x	Calif Gull	x	x	x	Gr-ch Thrush			x	x	Vespr Sparrow	x	x	x	x
Swains Hawk	x	x	x	x		Ring-b Gull	x	x	x	Veery		x	x	x	Lark Sparrow	x			x
Marsh Hawk	x	x	x	x	x	Frank Gull	x	x	x	Mt Bluebird		N		x	Sl-col Junco	x			
Merlin			x			Bonap Gull			x	Sprag Pipit		x	x	x	Chip Sparrow	x	x	x	x
Spar Hawk	N		x	x	x	Common Tern			x	Cdar Waxwing		x		x	Cl-col Sparrow	x	x	x	x
Ruffed Grouse	x		x	x	x	Black Tern	x	x	x	Loghd Shrike		x	x	x	Wh-th Sparr				x
Sh-t Grouse	x	x	x			Rock Dove	x	x	x	Starling		x	x	N	Song Sparrow	x	x	x	x
R-n Pheasant	x	x	x			Mourning Dove	N	x	x	Warbl Vireo		x	x	x	L-plnd Lngspr	x			x
Chukar			x			Gr H Owl		x	x	Tenn Wrblr		x		x	C-col Lngspr	x	x	x	x
Gray Part			x	x	x	Long-ear Owl	N			Or-cr Wrblr		x	x		Snow Bunting				x
Sora			x	x	x														

N indicates active nest.

# THE BIRDS OF CRESCENT BEACH, NORTH SURREY, B.C.

by **A. L. Grass**, South Burnaby, B.C.

For purposes of this article, Crescent Beach is defined as follows: that area of the municipality of Surrey west of the Deas freeway and south of the Nicomekl river. The area is generally known as the Crescent-Ocean Park peninsula.

Geographically the municipality of Surrey lies in the southwest corner of the mainland of British Columbia. Most of the municipality is independent of the Fraser Valley and is drained by three small streams that flow into Boundary Bay. "The estuaries of these streams, the Nicomekl and the Serpentine," writes Canon Holdom, "must have been the home for countless flocks of waterfowl before the coming of the white man, and in spite of clearing and draining, there is still a goodly number."

It could be said that bird study at Crescent Beach began some 143 years ago, when on Monday, December 13, 1824, a small party of explorers led by Chief Factor MacMillan of the Hudson Bay Company made their way up the Nicomekl river, where they reported seeing "immense flocks of plover". Martin W. Holdom of Crescent Beach considers these to have been Red-backed Sandpipers (*Erolia alpina*). They are still one of the commonest birds on the mud flats in winter.

It would be impossible to estimate the numbers of observers that have trekked the beaches, dykes, hill, fields and mud flats in search of new and exciting bird adventures, but there is little doubt that the Reverend Martin W. Holdom of Crescent Beach is the pioneer ornithologist of the area. His observations over the past years were published under the titles: "Glimpses of Surrey Bird Life" in 1952 and "Random Bird Notes", also in 1952.

Many changes in the bird populations have occurred during the past 100 years. Canon Holdom makes the

following remarks in his "Glimpses of Surrey Bird Life" regarding this problem:

"with the clearing of the coniferous forest and the growth of deciduous trees there has been a great influx of small land birds. The introduction of insect pests and weeds provide food for the sparrows and warblers. For example the American Goldfinch is common during the summer. It was probably unknown before the settlers introduced the dandelion."

Another aspect of the change resulting from the clearing of coniferous forests is the destruction of a formerly magnificent Great Blue Heron colony that once existed at Ocean park.

There are five main habitat areas at Crescent Beach at the present time:

1. Ocean waters (salt chuck)
2. Mud flats
3. Dykes
4. Fields
5. Bushy hillsides

The large numbers of waterfowl that winter here are typical of the area. Such species as Surf Scoters, Red-breasted Mergansers and Common Goldeneyes are very common during the late fall and winter. The numbers begin to taper off in late spring until by early summer waterfowl are almost non-existent in the area save for a few nesting Mallards.

Mud flats are the collecting grounds for large numbers of shore birds that feed on the crustaceans which abound in the mud. Typical species include the Red-backed Sandpiper, Greater Yellowlegs, Hudsonian Curlew, Western Sandpiper, and Great Blue Heron.

Dykes form the main nesting areas for Red-winged Blackbirds and Mallards. The thick growth of Scotch broom and salmonberry form suitable cover for White-crowned and Golden-



crowned sparrows, various titmice, and Rufous-sided Towhees.

Fields are the homes for species that are found only in these fields. Typical among them is the Western Meadowlark, Short-eared Owl and Marsh Hawk.

Hillsides are pathetic reminders of the magnificent stand of timber that was once Crescent Beach. Pileated, Hairy, and Downy Woodpeckers were once common here before the area was "improved". They are now found occasionally. One of the common species is the Evening Grosbeak which seems to prefer the maples. Warbling Vireos are found in the upper reaches of the Douglas fir trees.

The following account of the birds of Crescent Beach is based upon three years of field work carried out by myself and my good friend Glen Ryder, as well as the personal records of J. Vooy's and D. Wendell, and the accounts given by Canon Martin W. Holdom in his two works previously mentioned.

My authority for nomenclature has been W. Earl Godfrey's "Birds of Canada" (1966). The brief statement following each bird refers to its expected abundance in suitable habitats. Terms are defined as follows:

Abundant—every bird walk in considerable numbers

Common—every bird walk, less numerous than above

Frequent—not every bird walk, but a familiar bird

Rare—of regular occurrence but seldom seen

Casual records are given with dates and names of observers.

## THE BIRDS OF CRESCENT BEACH

1. Common Loon *Gavia immer*. Rare summer.
2. Arctic Loon *Gavia arctica*. Rare winter.
3. Yellow-billed Loon *Gavia adamsii*. December 21, 1964 (North Surrey Bird Count).
4. Red-throated Loon *Gavia stellata*. Common winter.

5. Red-necked Grebe *Podiceps grise-gena*. Common winter.
6. Horned Grebe *Podiceps auritus*. Common winter.
7. Eared Grebe *Podiceps caspicus*. Abundant winter.
8. Western Grebe *Aechmosporus occidentalis*. Common winter.
9. Pied-billed Grebe *Podilymbus podiceps*. Rare summer and winter.
10. Leach's Petrel *Oceanodroma leucorhoa*. April 17, 1962 (Glen Ryder).
11. Double-crested Cormorant *Phalacrocorax auritus*. Common resident.
12. Brandt's Cormorant *Phalacrocorax penicillatus*. Abundant winter.
13. Pelagic Cormorant *Phalacrocorax pelagicus*. Frequent resident.
14. Great Blue Heron *Ardea herodias*. Common resident.
15. Canada Goose *Branta canadensis*. Rare transient.
16. Snow Goose *Chen caerulescens*. February 26, 1963 (Glen Ryder).
17. Black Brant *Branta bernicla nigricans*. Common winter.
18. Mallard *Anas platyrhynchos*. Common resident. Nests on dykes.
19. Pintail *Anas acuta*. Frequent winter.
20. Green-winged Teal *Anas carolinensis*. Common winter.
21. Blue-winged Teal *Anas discors*. Frequent winter.
22. Baldpate *Marceia americana*. Common winter.
23. Shoveler *Spatula clypeata*. Frequent winter.
24. Canvasback *Aythya valisineria*. Common winter.
25. Greater Scaup *Aythya marila*. Abundant winter.
26. Lesser Scaup *Aythya affinis*. Rare winter.
27. Common Goldeneye *Bucephala clangula*. Common winter.
28. Barrow's Goldeneye *Bucephala islandica*. Common winter.
29. Bufflehead *Bucephala albeola*. Frequent winter.

30. Oldsquaw *Clangula hyemalis* Frequent winter.
31. Harlequin Duck *Histrionicus histrionicus*. Rare winter.
32. White-winged Scoter *Melanitta deglandi*. Frequent winter.
33. Surf Scoter *Melanitta perspicillata*. Abundant winter.
34. Common Scoter *Oidemia nigra*. Frequent winter.
35. Ruddy Duck *Oxyura jamaicensis*. Rare winter.
36. Hooded Merganser *Lophodytes cucullatus*. Rare winter.
37. Common Merganser *Mergus merganser*. Frequent resident.
38. Red-breasted Merganser *Mergus serrator*. Common winter.
39. Sharp-shinned Hawk *Accipiter striatus*. Frequent winter.
40. Cooper's Hawk *Accipiter cooperi*. Rare resident.
41. Red-tailed Hawk *Buteo jamaicensis*. Rare resident.
42. Rough-legged Hawk *Buteo lagopus*. Rare transient.
43. Bald Eagle *Haliaeetus leucocephalus*. Rare.
44. Marsh Hawk *Circus cyaneus*. Rare resident.
45. Osprey *Pandion haliaetus*. Rare summer.
46. Peregrine Falcon *Falco peregrinus*. Rare. One record by Martin W. Holdom (Glimpses of Surrey Bird Life, p. 5) in which he says: "while making my way along the dyke to the farthest field, a favorite resort of shore birds, a dark bird rather larger than a crow with sharp pointed wings, suddenly dashed down scattering flocks of yellowlegs and other sandpipers: a duck hawk of the dark race called 'Peale's' falcon which nest in the Queen Charlotte Islands."
47. Pigeon Hawk *Falco columbarius*. Rare winter.
48. Sparrow Hawk *Falco sparverius*. Frequent resident.
49. Ruffed Grouse *Bonasa umbellus*. Rare resident.
50. Ring-necked Pheasant *Phasianus cochlicus*. Rare resident.
51. American Coot *Fulica americana*. Frequent winter.
52. Semipalmated Plover *Charadrius semipalmatus*. Frequent transient.
53. Killdeer *Charadrius vociferus*. Abundant resident.
54. Black-bellied Plover *Squatarola squatarola*. October 30, 1966 (Al Grass and Glen Ryder).
55. Black Turnstone *Arenaria melanocephala*. Frequent winter.
56. Common Snipe *Capella gallinago*. Rare winter.
57. Long-billed Curlew *Numenius americanus*. Rare transient.
58. Hudsonian Curlew *Numenius phaeopus*. Frequent transient.
59. Spotted Sandpiper *Actitis macularia*. Frequent summer.
60. Greater Yellowlegs *Totanus melanoleucus*. Frequent transient.
61. Lesser Yellowlegs *Totanus flavipes*. Rare transient.
62. Least Sandpiper *Erolia minutilla*. Frequent transient.
63. Dunlin *Erolia alpina*. Abundant winter.
64. Short-billed Dowitcher *Limnodromus griseus*. Frequent transient.
65. Long-billed Dowitcher *Limnodromus scolopaceus*. Transient.
66. Semipalmated Sandpiper *Ereunetes pusillus*. Rare transient.
67. Western Sandpiper *Ereunetes mauri*. Common transient.
68. Sanderling *Crocethia alba*. Abundant winter.
69. Wilson's Phalarope *Stegopus tricolor*. February 26, 1963 (Glen Ryder).
70. Parasitic Jaeger *Stercorarius parasiticus*. Frequent fall transient.
71. Glaucous Gull *Larus hyperboreus*. Rare winter.
72. Glaucous-winged Gull *Larus glaucescens*. Abundant resident.
73. Western Gull *Larus occidentalis*. October 10, 1965 (Al Grass).
74. Herring Gull *Larus argentatus*. Frequent winter.
75. California Gull *Larus californicus*. Common transient.
76. Ring-billed Gull *Larus delawarensis*. Frequent transient.
77. Mew Gull *Larus canus*. Frequent



- summer.
78. Bonaparte's Gull *Larus philadelphia*. Common summer; frequent transient.
  79. Common Tern *Sterna hirundo*. Common fall transient.
  80. Arctic Tern *Sterna paradisaea*. Frequent fall transient.
  81. Common Murre *Uria aalge*. Frequent winter.
  82. Pigeon Guillemot *Cepphus columba*. Frequent transient.
  83. Band-tailed Pigeon *Columba fasciata*. Common summer.
  84. Rock Dove *Columba livia*. Abundant introduced resident.
  85. Mourning Dove *Zenaidura macroura*. Rare summer.
  86. Snowy Owl *Nyctea scandiaca* January, 1967 (J. Vooy's).
  87. Short-eared Owl *Asio flammeus*. Rare resident.
  88. Common Nighthawk *Chordeiles minor*. Frequent summer.
  89. Black Swift *Cypseloides niger*. Frequent summer.
  90. Rufous Hummingbird *Selasphorus rufus*. Common summer.
  91. Belted Kingfisher *Megasceryle alcyon*. Common resident.
  92. Red-shafted Flicker *Colaptes cafer*. Common resident.
  93. Pileated Woodpecker *Dryocopus pileatus*. Rare resident.
  94. Yellow-bellied Sapsucker *Sphyrapicus varius*. Rare resident.
  95. Lewis' Woodpecker *Asyndesmus lewis*. Rare summer.
  96. Hairy Woodpecker *Dendrocopos villosus*. Rare resident.
  97. Downy Woodpecker *Dendrocopos pubescens*. Frequent resident.
  98. Hammond's Flycatcher *Empidonax hammondi*. Frequent summer.
  99. Olive-sided Flycatcher *Nuttallornis borealis*. Common summer.
  100. Horned Lark *Eremophila alpestris*. Rare resident.
  101. Violet-green Swallow *Tachycineta thalassina*. Abundant summer.
  102. Tree Swallow *Iridoprocne bicolor*. Common summer.
  103. Rough-winged Swallow *Stelgidopteryx ruficollis*. Rare summer.
  104. Barn Swallow *Hirundo rustica*. Common Summer.
  105. Cliff Swallow *Petrochelidon pyrrhonota*. Rare summer.
  106. Steller's Jay *Cyanocitta stelleri*. Frequent resident.
  107. Common Raven *Corvus corax*. Rare resident.
  108. Northwestern Crow *Corvus caurinus*. Common resident.
  109. Black-capped Chickadee *Parus atricapillus*. Abundant resident.
  110. Chestnut-backed Chickadee *Parus rufescens*. Frequent resident.
  111. Common Bushtit *Psaltiriparus minimus*. Common resident.
  112. Red-breasted Nuthatch *Sitta canadensis*. Rare resident.
  113. Brown Creeper *Ceritha familiaris*. Rare resident.
  114. House Wren *Troglodytes aedon*. Rare summer.
  115. Winter Wren *Troglodytes troglodytes*. Frequent resident.
  116. Bewick's Wren *Thryothorus bewickii*. Frequent resident.
  117. Robin *Turdus migratorius*. Abundant resident.
  118. Varied Thrush *Ixoreus naevius*. Frequent resident.
  119. Hermit Thrush *Hylocichla guttata*. Rare summer.
  120. Swainson's Thrush *Hylocichla ustulata*. Frequent summer.
  121. Golden-crowned Kinglet *Regulus satrapa*. Common resident.
  122. Ruby-crowned Kinglet *Regulus calendula*. Common resident.
  123. Water Pipit *Anthus spinoletta*. Common transient; rare winter.
  124. Cedar Waxwing *Bombycilla cedrorum*. Frequent resident.
  125. Northern Shrike *Lanius excubitor*. Rare winter.
  126. Starling *Sturnus vulgaris*. Abundant resident.
  127. Solitary Vireo *Vireo solitarius*. Rare summer.
  128. Warbling Vireo *Vireo gilvus*. April 30, 1967 (Al Grass and D. E. Wendell).
  129. Orange-crowned Warbler *Vermivora celata*. Common summer.
  130. Yellow Warbler *Dendroica petechia*. Common summer.

131. Myrtle Warbler *Dendroica coronata*. Rare transient; February 9, 1966 (Al Grass and Glen Ryder).
132. Audubon's Warbler *Dendroica auduboni*. Common summer.
133. Wilson's Warbler *Wilsonia pusilla*. Common summer; January 1, 1964 (J. Vooy's).
134. House Sparrow *Passer domesticus*. Abundant resident.
135. Western Meadowlark *Sturnella neglecta*. Frequent resident.
136. Red-winged Blackbird *Agelaius phoeniceus*. Common resident.
137. Brewer's Blackbird *Euphagus cyanocephalus*. Abundant resident.
138. Brown-headed Cowbird *Molothrus ater*. Common summer. A frequent parasite on the American Goldfinch.
139. Western Tanager *Piranga ludoviciana*. Rare summer.
140. Black-headed Grosbeak *Pheucticus melanocephalus*. Frequent summer.
141. Evening Grosbeak *Hesperiphona vespertina*. Rare summer; frequent winter.
142. Purple Finch *Carpodacus purpureus*. Frequent summer.
143. House Finch *Carpodacus mexicanus*. Abundant resident.
144. Pine Grosbeak *Pinicola enucleator*. February 13, 1953 (M. W. Holdom).
145. Pine Siskin *Spinus pinus*. Common resident.
146. American Goldfinch *Spinus tristis*. Abundant summer; rare winter.
147. Rufous-sided Towhee *Pipilo erythrophthalmus*. Common resident.
148. Savannah Sparrow *Passerculus sandwichensis*. Common summer.
149. Oregon Junco *Junco oregonus*. Frequent resident.
150. Chipping Sparrow *Spizella passerina*. Frequent summer.
151. White-crowned Sparrow *Zonotrichia leucophrys*. Frequent resident.
152. Golden-crowned Sparrow *Zonotrichia atricapilla*. Common transient.
153. Fox Sparrow *Passerella iliaca*. Frequent winter.
154. Song Sparrow *Melospiza melodia*. Abundant resident.
155. Snow Bunting *Plectrophenax nivalis*. Rare transient.

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## SEVENTH ANNUAL MAY BIRD CENSUS, REGINA

Regina's annual May bird census was taken on May 13, 1967, with a total of 144 species and 14,256 individual birds reported. It is recognized that the number of individual birds counted does not constitute a true census, for the circle of 30 miles in diameter that forms the area of the Regina count cannot be completely covered in one day by the teams of observers. However, when compared with counts of other years, the numbers are interesting and often significant, sometimes showing quite marked changes in migration patterns. For example, 70 Yellow-bellied Sapsuckers were recorded on May 13, 1967 compared with five on May 15, 1966 and one on May 15, 1965, and this year's

count of 72 Sparrow Hawks was unexpected in view of 10 seen last year and one in 1965. The large numbers of these two species, perhaps the most notable feature of the 1967 census, indicate that the 1967 migration of both species was unusually delayed. It was similarly interesting to find a large flock of migrant Whistling Swans on a slough near Estlin, since swans have usually gone north by this date, and a Snowy Owl seen on the count represents the latest spring record for the Regina area. Also providing evidence of a generally late migration was the small number of flycatchers recorded this year: one Eastern Kingbird, one Western Kingbird, and one Least Flycatcher. The absence of Catbird,



Brown Thrasher and Baltimore Oriole on the 1967 count was equally indicative of the delay in the arrival of migrants, for these species would normally be present (compare the 1965 numbers of 2 Catbirds, 70 thrashers, 29 orioles).

Presumably related to the long cold spring was the poor warbler migration. Only six species of warblers were recorded on the 1967 count, whereas the 1966 count listed 16 different species. We speculated that the large warbler migrations must have passed over Regina this year without stopping. It is interesting to note that the Saskatoon count later in the month (May 27) recorded only 11 species, with the comment that warbler numbers were disappointing.

**SPECIES LIST** (numbers in parentheses are those of the May 15, 1966 count, presented for comparison):

Common Loon, 1 (0); Red-necked Grebe, 1 (1); Horned Grebe, 78 (46); Eared Grebe, 121 (46); Western Grebe, 58 (140); Pied-billed Grebe, 8 (3); Double-crested Cormorant, 1 (0); Great Blue Heron, 3 (5); Black-crowned Night Heron, 2 (4); American Bittern, 2 (0); Mute Swan, 2 (4); Whistling Swan, 748 (10); Canada Goose, 245 (247); White-fronted Goose, 6 (0); Mallard, 353 (408); Gadwall, 40 (80); Pintail, 370 (224); Green-winged Teal, 37 (45); Blue-winged Teal, 171 (280); American Widgeon, 102 (167); Shoveler, 378, (237); Red-head, 42 (14); Ring-necked Duck, 7 (3); Canvasback, 94 (69); Lesser Scaup, 1158 (495); Common Goldeneye, 8 (0); Bufflehead, 6 (3); Ruddy Duck, 83 (59); Common Merganser, 10 (0); Red-breasted Merganser, 2 (0); Sharp-shinned Hawk, 1 (0); Red-tailed Hawk, 5 (4); Broad-winged Hawk, 3 (0); Swainson's Hawk, 13 (5); Rough-legged Hawk, 7 (1); Marsh Hawk, 38 (9); Pigeon Hawk 2 (0); Sparrow Hawk, 72 (10); Sharp-tailed Grouse, 1 (0); Gray Partridge, 2 (4); Sora, 14 (5); American Coot, 227 (106); Semipalmated Plover, 17 (17); Killdeer, 157 (145); American Golden Plover, 43 (36); Black-bellied Plover, 1 (11); Ruddy Turnstone, 1 (0); Common Snipe, 6 (3); Upland Plover, 2 (1); Spotted Sandpiper, 24 (14); Solitary Sandpiper, 119 (0); Willet, 34 (43); Greater Yellowlegs, 82 (1); Lesser Yellowlegs, 416 (83); Pectoral Sandpiper, 830 (135); White-rumped Sandpiper, 43 (2); Baird's Sandpiper, 50 (104); Least Sandpiper, 82 (119); Long-billed Dowitcher, 63 (29); Semipalmated Sandpiper, 1 (74); Buff-breasted Sandpiper, 2 (0); Marbled Godwit, 3 (25); Hudsonian Godwit, 1 (2); Sanderling, 8 (15); American Avocet, 53 (63); Wilson's Phalarope, 41 (67); Northern Phalarope, 15 (2); California Gull, 16 (7); Ring-billed Gull, 109 (106); Franklin's Gull, 125 (10); Bonaparte's Gull, 9 (0); Common Tern, 44 (74); Black Tern, 30 (60); Rock Dove, 51 (76); Mourning Dove, 49 (60); Great Horned Owl, 9 (5); Snowy Owl, 1 (0); Burrowing Owl, 3 (2); Short-eared Owl, 23 (0); Belted Kingfisher, 11 (6); Yellow-shafted Flicker, 55 (27); Yellow-

bellied Sapsucker, 70 (5); Eastern Kingbird, 1 (0); Western Kingbird, 1 (2); Eastern Phoebe, 1 (0); Say's Phoebe, 1 (1); Least Flycatcher, 1 (16); Horned Lark, 338 (337); Tree Swallow, 110 (52); Barn Swallow, 21 (41); Cliff Swallow, 1 (0); Purple Martin, 12 (44); Black-billed Magpie, 61 (29); Common Crow, 157 (204); Black-capped Chickadee, 3 (2); Brown Creeper, 1 (3); Robin, 666 (268); Hermit Thrush, 9 (1); Swainson's Thrush, 467 (158); Gray-cheeked Thrush, 71 (76); Veery, 1 (12); Mountain Bluebird, 4 (0); Ruby-crowned Kinglet, 4 (4); Water Pipit, 5 (3); Sprague's Pipit, 4 (2); Loggerhead Shrike, 54 (35); Starling, 43 (43); Philadelphia Vireo, 2 (1); Black-and-white Warbler, 9 (5); Orange-crowned Warbler, 31 (50); Yellow Warbler, 6 (67); Myrtle Warbler, 90 (266); Blackpoll Warbler, 3 (13); Northern Waterthrush, 38 (13); House Sparrow, 438 (510+); Western Meadowlark, 273 (358); Yellow-headed Blackbird, 23 (47); Red-winged Blackbird, 927 (1086+); Rusty Blackbird, 2 (0); Brewer's Blackbird, 573+ (469); Common Grackle, 148 (167); Brown-headed Cowbird, 155 (169); Rose-breasted Grosbeak, 3 (10); Purple Finch, 23 (11); Rufous-sided Towhee, 8 (3); Lark Bunting, 3 (4); Savannah Sparrow, 48 (48); Baird's Sparrow, 5 (1); Vesper Sparrow, 38 (60); Lark Sparrow, 2 (2); Slate-colored Junco, 64 (8); Tree Sparrow, 30 (0); Chipping Sparrow, 27 (141); Clay-colored Sparrow, 7 (148); Harris' Sparrow, 60 (251); White-crowned Sparrow, 233+ (204); White-throated Sparrow, 194+ (114); Fox Sparrow, 3 (0); Lincoln's Sparrow, 68 (34); Song Sparrow, 24 (27); McCown's Longspur, 228+ (248+); Lapland Longspur, 1179+ (11744+); Chestnut-collared Longspur, 16 (46); Snow Bunting, 18 (2).—Count totals compiled by Hugh and Joyce Smith, Regina; reported by Margaret Belcher, Regina.

## SIGHT RECORD OF GLAUCOUS-WINGED GULL FOR ALBERTA

by David Stirling, 3500 Salsbury Way, Victoria

The Glaucous-winged Gull *Larus glaucescens*, is a rare straggler to Alberta. In *Birds of Alberta*, second ed., 1966, Salt and Wilk list several records for the northern part of the province. On September 28, 1966 I saw an adult Glaucous-winged Gull at the Valley View garbage dump. Valley View is in the Peace River District 65 miles east of Grande Prairie.

The lone gull was feeding with 20 Common Crows and a flock of Starlings. It did not take flight with the other birds but remained feeding and allowed me to approach to within about 15 yards. It had all the field marks of a Glaucous-winged Gull. The grey primaries were particularly noticeable when the bird finally flew. I have had experience with field identification of large gull species on the Pacific Coast and I feel certain this bird was a Glaucous-winged Gull.



# UNUSUAL "EARLESS" DEER MICE

by **Ralph D. Morris**, Prairie Migratory Bird Research Centre, Saskatoon

The deer mouse (*Peromyscus maniculatus osgoodi* Mearns) represents one of the most common rodent species on the Saskatchewan prairies (W. H. Beck. 1958. A guide to Saskatchewan mammals). Normally found in low brush areas and immature poplar stands, deer mice are infrequently seen during daylight hours as they become active at dusk and return to their underground burrows at dawn.

In order to determine the effects of a commercial insecticide on the breeding biology of *Peromyscus*, experiments are being conducted with a laboratory population of 150 animals housed in the animal room of the Prairie Migratory Bird Research Centre in Saskatoon. On August 13, 1966 two untreated wild adults pro-

duced a litter of two males and two females. These animals, now ten months of age, exhibit the expected morphological and behavioural characteristics of normal *Peromyscus*. All four, however, lack the large pinnae or external ears normally found in mice of this genus (W. H. Burt and R. P. Grossenheider. 1952. A field guide to the mammals). No portion of the outer vibration collecting appendage is present. Examination of the "earless" mice has confirmed that the absence of ears resulted from growth failure and not from physical damage.

Subsequent to the birth of the "earless" mice, the original parents have produced two litters. Five young born on November 5, 1966 and six young



Photo by D. J. Andrews

Figure 1. Normal appearance of *Peromyscus* showing large ear development.





Photo by D. J. Andrews

Figure 2. Abnormal "earless" *Peromyscus*.

born on April 5, 1967 all showed normal ear development.

To date, crosses among "earless" litter mates have produced seven young, all with normal ears. These breeding data suggest that the unusual ear development of the "earless" animals has resulted from a physiological abnormality of the female parent during pregnancy; however further breeding is being continued to discover whether the observed abnormality is genetic.

During the summer of 1966, more than 200 *Peromyscus* were captured in live traps from the same general region which produced the parents of the "earless" animals. All had normal ear development. As deer mice are an important food source for many avian and mammalian predators, they are dependent for survival on acute visual and auditory reception. Animals which lack normal ear development would

therefore be more susceptible to predation and would be unlikely to survive to breeding maturity under field conditions.

## BLACK BEAR AT ROCANVILLE

by Mrs. D. Sutton, Rocanville

In early May this year a large bear was seen several times about two and a half miles east of Rocanville. Ray Birkenshaw said that the animal was black. Ernest Holland, who saw it at close range on the grid-road allowance, called it brown "at least the hairs had a brown tinge at the ends".

Bears have been reported periodically in this district but previously they were closer to the Qu'Appelle Valley. The bear seen here this year was not far from the garbage dump so probably he had been rummaging there.



# ON THE SIDE OF THE WOLF

by **Robert C. Guest**, 10989-126 Street, Edmonton, Alberta

On March 15, 1967, the Legislative Committee of Tourism and Natural Resources in Ontario recommended higher bounties on timber wolves with the avowed aim of drastically reducing the wolf population. Wolves in Algonquin Provincial Park would be killed.

This move was of particular interest to me because of a wolf conservation project that I've been working on for over a year. I have designed a "wolf conservation" trademark, or symbol,



and have finally succeeded in having this properly registered in Ottawa. I believe that the wolf has a biological value and that this has been proven time and again but also the wolf has an aesthetic value which is equally valid and permanent. What would the great outdoors be like without the wolf?

Naturally I wrote on the side of the wolf and against the recommendation. I was pleased to learn later that the recommendation had raised a storm of protest all across Canada. Thousands of letters were sent to the Honourable John P. Roberts, Q.C., Prime Minister of Ontario and to the Hon. Rene Brunelle, Minister of Lands and Forests.

On April 10 the Hon. Rene Brunelle made a statement in the Legislature rejecting the totally unrealistic demands of the committee. The government already has 25 specially trained predator control officers and they assist farmers or trappers wherever predators cause damage. The wolf will continue to be controlled in Ontario but it will not be exterminated.

## SULPHUR BUTTERFLIES AT THE PAS, MANITOBA

by **Walter V. Krivda**, The Pas

There are two kinds of yellow butterflies that may be seen flying over cultivated fields, especially clover and alfalfa. These are the yellow sulphur and the orange sulphur. The yellow species is *Colias philodice* and the orange is *Colias eurytheme*. Of the two species, the yellow is generally the more common.

The orange sulphur feeds in the

caterpillar stage on alfalfa. It is said to be a recent arrival and it may become more common as the acreage of alfalfa increases. However, it is believed that the orange sulphur cannot survive our severe winters. In early July a few wind-blown individuals arrive in this area. In some years the sporadic migration becomes a considerable local flight and by late



July or August there may be many bright orange butterflies in the alfalfa fields. Further south this species may be a real pest and in the central states whole fields may be a brilliant orange with clouds of these butterflies.

The yellow sulphur overwinters in Manitoba at least as far north as The Pas. It overwinters in the pupal stage and emerges in late May or early June. This spring flight is made up of small specimens, known at *kootenai*, which are rather darkly marked on the underside.

By mid-August there is a second brood of the yellow sulphur on the wing, feeding at fall-blooming asters and particularly thistle flowers. Specimens of this brood are easily twice the size of the May-June brood. This autumn flight, rather constant in appearance from year to year, can be very abundant locally and fresh individuals continue to emerge through September. In mild dry autumns some will be on the wing into early October, but these are rather dwarfish specimens.

The early spring flight of the yellow sulphur is of variable abundance and it would seem that this is dependent on the weather of the preceding autumn. A mild, long autumn may produce many pupae that survive the winter. A short, cold autumn does not permit quick larval development and the larvae are killed off by the first heavy frosts. This results in a reduced flight of the dwarfish adults the following spring.

A certain amount of hybridization occurs between the yellow and orange sulphurs. This fact has been accepted for about 70 years. The  $F^1$  are yellow with orange patches or "flushes". Various  $F^2$  and backcross individuals may occur but in an average year the species remain relatively pure. The rate of hybridization seems to increase with the abundance of the two species. There are areas now in the United States, Baltimore for example, where the two species are so hybridized that they behave as one species and are

known to collectors as "*hybrida*".

There are three other species of sulphurs that can be collected in many areas of Manitoba and Saskatchewan.

The blueberry sulphur, *Colias interior*, flies in late July and August in woods where blueberries are common. The caterpillars feed on the velvet-leaf blueberry, *Vaccinium myrtilloides*. The adults fly low to the ground and are hard to net in the shubbery.

The most remarkable and specular of our sulphurs is the giant sulphur, *Colias gigantea*, which flies in late June in boggy areas. The caterpillars feed on willow, likely *Salix lutea*, but only on young plants up to two feet tall. The caterpillars pupate at ground level and are likely covered but not apparently harmed by the snow water. The eggs are laid singly on the under side of the willow leaf. They are cream coloured and sharply pointed. Giant sulphurs are strong fliers and very wary. They are most easily collected in scrubby areas while feeding at bog flowers such as Labrador tea, *Ledum groenlandicum*. Males and females are a fine lemon yellow, but there is also a cream-white form of female, called *alba*.

The fifth species of sulphur, *Colias christina*, is named after the wife of a Hudson's Bay clerk of early days. *Colias christina* is orange and can be confused with *C. eurytheme* but it is a butterfly of wild country. The caterpillars likely feed on a species of locoweed and not on cultivated alfalfa. The flight pattern is distinct, it flies several yards and then drops down. This it does again and again. It can be easily flushed even in a high wind. It is on the wing in the first week of July at The Pas.

There are other sulphurs in the extreme northern parts of Canada. These are very rare in most collections. Across Europe and Asia and in South America still other sulphurs occur. Much work is needed to learn their food preferences and to understand their phylogenetic relationships.



# FLOWERS OF THE PEACE RIVER COUNTRY ROADSIDES

by **Dorthea H. Calverley**, 10209 14th Street, Dawson Creek, B.C.

During the years 1955-1966, inclusive, I have collected wild flowers in the Peace River country. This year as a centennial project the Girl Guide Association of Dawson Creek under the supervision of Mrs. F. P. Flack, 1317 93rd Avenue, has typed and assembled a list of this collection. The stencils are still available so extra copies can be obtained by writing to the author in Dawson Creek. It is my hope that this list may induce some botanist to make a complete and scientific survey of the area. At the rate at which clearing and cultivation is proceeding, less time is left for this than one would wish.

The list is not a complete list of all the wild flowers of the area. It includes only those which can be reached on foot, from a car, by a collector whose agility is considerably impaired by advancing years. A few mountain species were brought down by Roderick Calverley but the mountains of the area are scarcely touched. The list does not include grasses, sedges, common weeds, or marsh and muskeg plants.

The Peace River country covered by this list includes the easily travelled roads of the British Columbia area as far west as Hudson's Hope and Lake Azousetta, as far north as Rose Prairie and Cecil Lake, and as far south as Sukunka Falls and Puggins Mountain. Since the Kliskun Hills are so close to the British Columbia boundary, this unique and interesting area has been included. Within this area there are still many places to be explored.

The list, arranged by families, includes the common name, the scientific name, brief notes on where found and abundance and earliest recorded flowering dates. The scientific names were supplied by the Provincial Museum of British Columbia or by the Botany Department of the University of Alberta. Pressed specimens of the plants listed are in the Provincial

Museum in Victoria. I am deeply indebted to Dr. Adam Szczawinski, Provincial Botanist and to his assistant, W. Savale, for their kindness in identifying more than five hundred specimens.

In the radius of an afternoon's drive, one may sample prairie, muskeg, mountain, forest, "bush", "badlands" and sub-arctic habitats. Blendings and overlappings of these habitats may produce variations and subspecies. For example, *Anemone patens*, commonly called the crocus, may look, to the casual southern prairie visitor, exactly like the ones he knows at home. It may puzzle him to find this dweller of dry prairie sod growing in profusion under the pine woods near the Portage Mountain dam. Actually this is a distinct variety, *Anemone patens* L. *multifida* (Pritzel) Zamel.

The Pouce Coupe Hills and the Bear Hills south of Dawson Creek have been explored only enough to show that unexpected plants may be found at top elevations and on their southern slopes. For example, although the trillium is considered very improbable at this latitude, three careful observers have reported that this plant has bloomed here. Since I do not have a voucher specimen the trillium is not included in the present preliminary list.

The assistance of Howard and Roderick Calverley is gratefully acknowledged, also that of Mrs. Janet Paul, Mrs. Anna Mantle, and many other friends who directed me to new finds, or brought specimens in to me. And thanks again to the Girl Guide Association for putting this material into usable form.

[EDITOR'S NOTE: Mrs. Calverley, who kindly sent us a copy of the list, writes that as Dorthea Horton she lived in Saskatchewan while it was still Northwest Territories, and that she taught for many years in Swift Current Collegiate.]

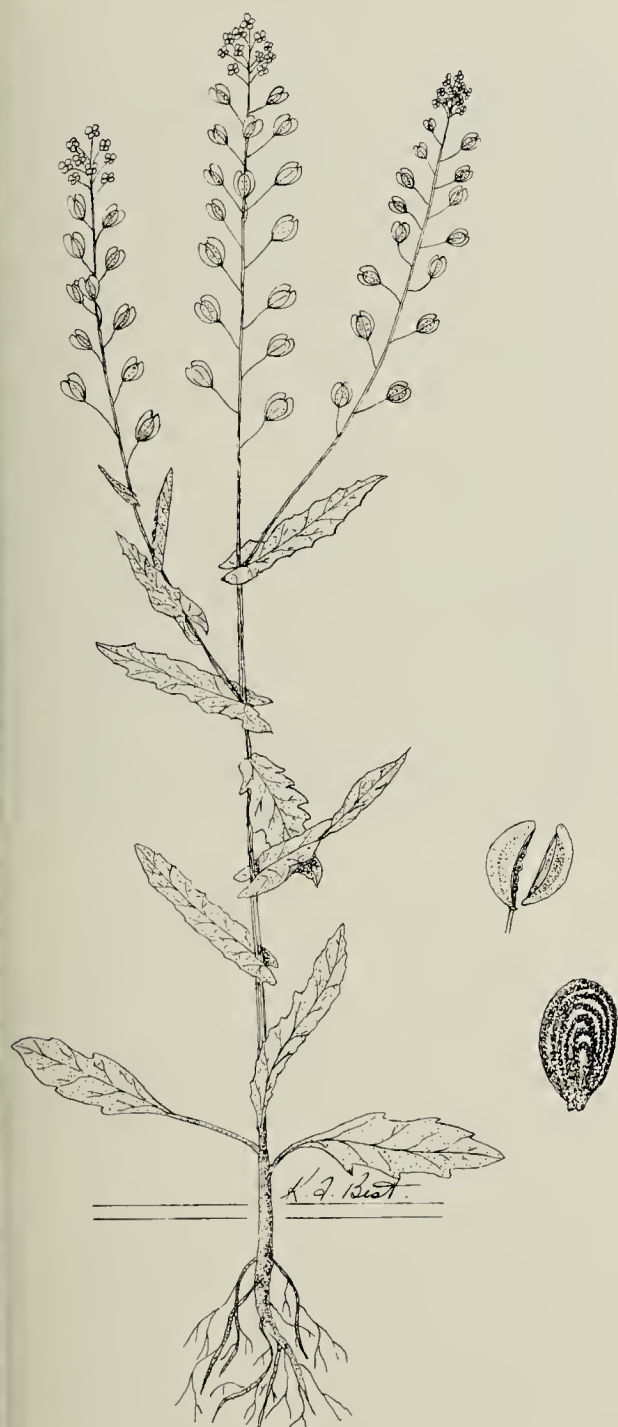


# TWO WHITE-FLOWERED MUSTARDS

by Keith F. Best, Swift Current

In our series of plants of various habitats, we have come from the arid, sand and dune vegetation up to the flora found in the more favored locations such as cultivated fields, roadsides and garden areas. Let us now look at two introduced annual or winter annual weedy species which are widespread in their distribution.

The genus *Thlaspi*, usually called pennycress, but also known as candytuft, pennygrass and wild sweet-lyssum, belongs to the Mustard Family (Cruciferae). *Thlaspi* (from



Stinkweed



Shepherd's purse

thlaein, to crush) is a Greek name for a kind of mustard whose crushed seeds were anciently used as a condiment. The introduced stinkweed, or field pennycross (*Thlaspi arvense*), native to Europe and Asia, is abundant throughout the west.

Stinkweed is an annual or winter annual with hairless stems and smooth leaves. The lower leaves, which soon wither and fall off, are lanceolate to oblong. They are eared at the base and clasp the stem. The small white flowers are in clusters at the ends of the



stems. The stalked pods are oval, flat, broadly winged and deeply notched at the tip. Generally green at first, the pods turn dull-yellow to orange when mature. The seeds are a purplish chocolate brown with a grooved pattern like a finger print on each side.

The stinkweed is especially detrimental in fields where dairy cows are pastured because, if grazed, it imparts a disagreeable, somewhat garlic-like flavor and odor to the milk.

Shepherd's purse (*Capsella bursa-pastoris*) also belongs to the Cruciferae or Mustard Family. The Latin name is literally a *shepherd's little purse*, an allusion to the shape of the tiny seed pods. This introduced annual or winter annual has a branched stem with small white flowers in branched racemes. The basal leaves are often deeply cut and lobed, forming a rosette. The stem leaves are small, lance-shaped and clasp the stem with eared bases. The pods are an inverted triangle and notched at the blunt end. Each pod contains about twenty small seeds. Shepherd's purse is a very common weed on roadsides around dwellings and in waste places.

### ORCHID SURVEY

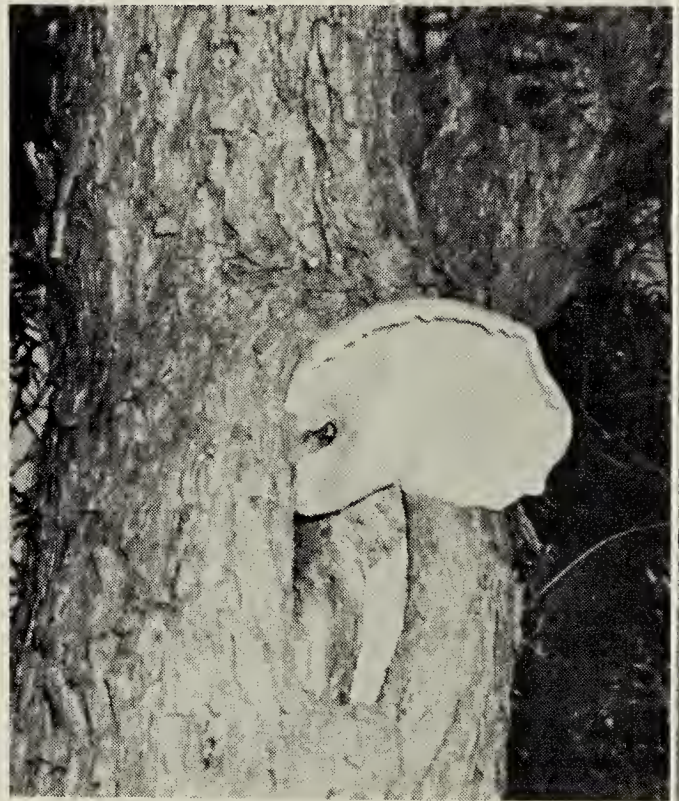
A group of members of the Ottawa Field-Naturalists' Club have begun a long-term project to accumulate sight records of occurrences of native Canadian orchids. During the summer of 1966 three teams of observers located 37 species of orchids in 913 localities within driving distance of Ottawa. It is hoped that the survey can take place in all parts of Canada.

Knowledge of the distribution of orchids obtained from the survey could be used in connection with preservation activities, especially near our more urbanized regions. If it is known, for example, that a particular locality contains a rare species or that the locality contains many species a stronger case can be made for legal preservation or protection of the site. Sites rich in orchids often contain other rare or interesting kinds of plants. The presence of such plants can provide further justification for

establishing legal protection for such sites.

Maps of the National Topographic System marked with 1000-metre grid must be used for the survey. These maps, scale 1:50,000, can be obtained for 50 cents each from: Maps Distribution Office, Department of Energy, Mines and Resources, 615 Booth Street, Ottawa 4, Ontario. Make cheque or money-order payable to the Receiver-General of Canada. Participants from all parts of Canada are cordially invited. For more details write to project coordinator, Mr. E. W. Greenwood, P.O. Ramsayville, Ontario.

### OYSTER MUSHROOM



The Oyster Mushroom is reported as "delectable when not too old". In the accompanying picture the Oyster Mushroom, *Pleurotus ostreatus*, is shown growing above a natural cavity in a Pepper Tree, *Schinus molle*. My daughter Marjorie and I found this rather unique "set-up" while taking 1966 Christmas bird census. We thought that the mushrooms made a good protective canopy over a suitable nesting or roosting place for birds.—Emerson A. Stoner, Benicia, California.



# Junior Naturalists

Edited by **Joyce Deutscher**, 7200 6th Ave., Regina

## THE RESOURCE READER

How many Juniors, teachers and parents too, are aware that the Information Branch, Department of Natural Resources, Administration Building, Regina, has material available in loose leaf form on the natural history of Saskatchewan? It is well worth writing to the Information Branch for information on how to receive the binder, the loose leaf material available and the cost of the service.

Stella Holinaty from Yellow Creek, tells us in her letter that she used the Resource Reader to identify the squirrel her father caught. We note that Juniors writing in this issue use every resource available from Dr. Houston's bird banding visit to radio broadcasts and resource readers.

## TREE SWALLOWS BUILD AGAIN

by **Kenneth Mazur**, age 11, Yellow Creek

This spring I built a bird house. In a few days a pair of Tree Swallows came to it. They hauled dried grass and feathers into the bird house. The female laid six eggs. Then a sparrow came and broke the eggs. A few days later the swallows started to build again. Now they have five eggs in the nest.

## LONG-EARED OWL

by **Joan Popiel**, age 11, Yellow Creek

One day Mr. Isinger told his pupils that Dr. Houston was coming to band owls. I went looking for owl nests and found a Long-eared Owl nest with six eggs in it. Every two to four days I went to visit the nest. There are now five young owls.

Dr. Houston will band the owls to see if they follow their migration routes, to see if they come back to their nesting places next year, and to see how long they live.

## DR. HOUSTON BANDS OWLS

by **Colleen Shewchuk**, age 12, Yellow Creek

On May 25 some of my classmates and I went to watch Dr. Houston band Horned Owls.

In the first nest Dr. Houston banded three Horned Owls. An infertile egg fell out of the nest. Dr. Houston wrapped the egg in foil and took it with him. He saves the eggs to find out how much weed and insect spray is in the egg.

In the second nest we found one Horned Owl and another infertile egg.

In the first nest there was a rabbit and in the second a pocket gopher.

## FAMILY SCATTERED BY A CROW

by **Sherry Chubak**, age 11, Yellow Creek

One day my brother found a duck nest. As he walked towards it the mother duck started leading her ducklings away. Then a crow came swooping down and picked up a little duckling. When the mother saw that she started going every which way and the ducklings scattered. She started walking faster and only one duckling caught up with her and the rest were lost. So my brother took the four lost ducklings to our mother hen and she is now taking care of them.

## OUR AQUARIUM

by **Audrey Lebedowich**, age 12, Tway

One day our class decided to make an aquarium so one of my classmates brought a glass container. Other of my classmates went out during science period and got some plants and animals. Next day someone else brought some frog's eggs and a frog. Mr. Hozun gave our teacher some minnows to put in the aquarium. The frog often croaked during school hours.

Later we poured the contents of the aquarium back into the slough.

## **CLIFF SWALLOWS BUILD A NEST**

by **Colette Isinger**, age 8, Yellow Creek

We live near a hall and the Cliff Swallows like to build their nest on it. On Sunday night it rained and in the morning there was much mud. The Cliff Swallows would take some mud and then mix it with saliva from their mouth and stick it on their nest. The House Sparrow tried to move in after the Cliff Swallows had finished the nest.

## **JACK RABBITS**

by **Eugenia Kprval**, age 12, Yellow Creek

One day my dad saw two jack rabbits running from an old threshing machine. Our two dogs tried to catch them. Dad saw them many times after that. He said they must have a nest in the machine.

About a month later when I was out walking I stepped about two inches from some shrubs. All of a sudden a rabbit came out from the shrubs. It ran ten feet away from me. We stood and looked at each other for about two minutes. Then our dog came. The rabbit ran toward the machine. I see the rabbits about every two weeks now.

## **PET MAGPIE**

by **Glen Flemming**, age 13, Yellow Creek

On June 24 while working in the field I heard cries of young magpies in the bush. I climbed about nine feet up the tree. I caught a young magpie which I took home.

The young magpie likes to eat bread mixed with milk. In about two days I was able to let it out of its cage. The magpie is so tame now that I can walk right up to it. Now it is eating raw meat.

## **A CAPTURED RABBIT**

by **Gary Oleksyn**, age 11, Yellow Creek

One day I saw a Bush Rabbit sitting very still. So I slowly walked closer to it and all of a sudden I grabbed it.

I lifted it up and with its hind legs it scratched me on the arm. Then it started to make a funny noise.

I took it home and showed my parents. My dad said it was a Bush Rabbit. I kept it for a couple of minutes and then I let it go.

I went back to the place where I caught the rabbit and found some bark chewed off the tree by it.

## **SPIDER AND INSECT COLLECTING**

by **Donna Matkowsky**, age 10, Yellow Creek

One day I started collecting insects and spiders. My mother found a spider in her hair. Then I found an ant on the doorstep. My sister found another spider. She found the spider on the curtains. On the screen door I caught two flies. One was small and one was large.

At school we use a killing jar to give insects a swift death.

## **BIRDS AT BUFFALO POUND LAKE**

by **Carol Andrews**, age 13, Moose Jaw

Have you been to Buffalo Pound Provincial Park lately? Since the arrival of the warm weather, it has become the nesting place for many birds that one rarely sees. On Victoria Day weekend we were surprised to see what looked like a large grey cat perched in a big nest in a tree in the camping area. On closer observation we found it to be a Great Horned Owl guarding her two young owlets which looked like a pair of fluffy, white ookpiks.

Later a loud chattering call announced the arrival of a flicker who perched on a near-by branch and began unconcernedly to preen himself. His plumage was as smooth as if he wore a silk stocking over his head and neck. When he flew away we saw the flash of yellow under his tail.

A robin has built her nest in a very unsuitable spot. It is on an exposed ledge in front of the men's toilet where she is constantly interrupted in her task of brooding her four eggs. We wonder if she will be able to raise her family in such a public place!



Each year a different species of bird seems to be predominate at the park. This year there are many noisy kingbirds raising families. Last year there seemed to be a large number of Baltimore Orioles and Yellow Warblers. Two years ago there was a large flock of pelicans. This year none—but last week we again saw four of these large lovely birds flying over the lake.

I have heard that several guided nature walks are being planned for the enjoyment of summer visitors. If you have a free weekend coming up, may I suggest that you bring a pencil, notebook, picnic lunch, some field glasses and perhaps a camera and spend an enjoyable afternoon at this lovely spot. I can guarantee that your first visit will not be your last.

### OUR FRIEND MR. CHIPMUNK

by Mary Gillies, age 11, Unity

Last summer we went to Jackfish Lake for our vacation. I am in the habit of rising early so I usually swim before breakfast.

It was then that I saw the chipmunk. It was a rather cool morning and the dew was sparkling in the sun when a little chipmunk came up to me. He picked up a crumb and put it in his tiny mouth. I was thrilled.

Later my sisters and I made little trails of bread leading to our hands. Our little friend actually ate out of our hands.

### A THIN THING

by Nancy Reid, age 10, Camp Robinson,  
Ontario

The other day we saw a thin thing. We caught it and put it in a pitcher. It was twelve or more inches long. It was about the size of a number ten thread and was black.

Later the same day I caught another one. It was smaller than the first one about eight or more inches long. I put this one in a pail. It swam all around. When they swim you can't tell their head from their tail. But when you pick them up you can tell that their

tail is forked and that their head is darker than their body. We threw them away after that because mother couldn't stand them.

[EDITOR'S NOTE: The "thing" described by Nancy is a worm. As its shape suggests it is sometime called a hair worm or a thread worm. Nancy's description of the worm was accompanied by an equally good drawing of it.]

### BIRD AND MAMMAL OBSERVATIONS BY JUNIORS

Nest watching was a favorite occupation of some Juniors this spring. Evelyn Lypchuk describes a woodpecker's nest she saw, "The nest was in a fence post. There were about five holes in the post. The nest looked deserted."

The flicker's nest discovered by Bobby Oleksyn was far from deserted. He quickly pulled his hand out of the nest when he felt a bird.

A little more cautious was a Junior (this letter wasn't signed) and her cousin Ellen who spotted a nest. "A big bird flew from the nest when we got there. We both got scared. I was going to climb the tree to see what would be in the nest but the mother and father were flying around the tree." Since the nest was probably a hawk's nest it is just as well that the two cousins did not climb up to it.

Don Wojcickowski mentioned an unusual bluebird nest, one with six eggs instead of the usual four, while John Mukli counted a total of eleven eggs in a duck's nest.

Delmer Dutka didn't have to go looking for a nest to investigate. He built one for bluebirds. Delmer put a hinged lid on the nest and kept notes. He reports having set up the nest on May 9, the nest was completed by the 16, the first egg in it by May 20, six eggs by June 3, and to quote Delmer:

"June 7, six young, bare, eyes closed.

"June 12, six young, feathers coming, eyes shut.

"I got the idea," Delmer adds, "from my teacher and a radio program, *Neighbours of Wood and Plain*."

Apparently some birds feel that an ordinary bird house is not big enough for them. According to Ellen Kuz, "Almost every year a family of swallows moves into our old house. Whenever we try to get into the old house, the swallows try to make us go away."

Ken Orenchuk was watching nests too and noted that it took a pair of Barn Swallows two days to make their nest.

Ten eggs were found in a Ruffed Grouse nest by Elsie Nemeth while out walking with her father and brother. "When we came close to the nest," she reports, "the grouse stood up by her nest so we would not harm her eggs. When we went away she went back to her nest."

Iris Simon was careful not to disturb a mother robin on her nest. "When I found a robin's nest", she relates, "I looked to see if any birds were watching me. No birds were watching me so I peeped in. There were two eggs in the nest."

Not quite such a happy event was witnessed by Idelle Swickiniuk. She tells us, "My brother and I went for a hike. I stopped for a rest near a tree. All of a sudden a baby robin fell out of its nest. It must have fallen over the edge. The fall killed the bird." Meanwhile Elizabeth Toth found a dead oriole, still warm.

From all accounts these Juniors from Yellow Creek have been busy observing life and death in the animal world around them. Nor were birds the only animals observed. Mammals came in for a few comments as well.

Rosemary Nemeth found gopher and squirrel tracks in the mud as well as a deserted badger den. A squirrel nibbling a nut held in his front paws was observed by Debra Gingara who adds, "As I kept watching the squirrel I was surprised to see it jump such a distance from tree to tree. The squirrel had a big bushy tail and was reddish in color. I soon found out that it was a red squirrel."

On her way to Porcupine Plain, Deborah Shewchuk saw three black bears." The mother bear was on one side of the road and the two cubs on the other side. The cubs ran to the mother. Then the family trotted into the bush."

Audrey Zip chanced upon a muskrat sitting on a log. "It appeared to be eating some grass. As I came closer to it, the muskrat jumped into the water and swam away."

Evelyn Lypchuk, while out on a hike, came across a squirrel's nest. "It was about seven feet off the ground. The nest was full of feathers. I didn't stay at the nest too long."

That just about winds up the news for this time. The story about the aquarium by Audrey Lebedowich however reminds me of something which happened to me while teaching school in the country. The students brought in a collection of water animals and plants from a nearby creek for observation in the classroom. However, we failed to recognize the little wrigglers in the aquarium until several days afterwards when the peace and quiet of the classroom was interrupted by frequent slaps as we swatted mosquitos. It seems we were raising them in the aquarium!

Goodbye for now and let us hear from all of you again.

## BIRD BOOK

Some time ago Mr. R. C. Burron sent us an excellent hand-made book, *Arctic Birds of Cambridge Bay, Northwest Territories*, prepared by the students in his class in the federal day school.

## CONTRIBUTIONS ARE WELCOME FROM ALL JUNIORS

Letters, drawings and photographs for the Junior Section should be sent to Mrs. Joyce Deutscher, Junior Editor, 7200 6th Ave., Regina, to arrive not later than October 15 for inclusion in the next issue of the *Blue Jay*.



# FIVE LITTLE MALLARDS

by W. G. Harstad, Box 116, Codette

I have many vivid memories of my childhood spent three miles southeast of Codette. Much of my time was spent in the company of wild birds and animals. This was before agriculture's hunger for open space gradually changed the remaining tree land into vast fields of grain. To find wildlife as it was then, we must now go further back into the sparsely settled country. Forest-loving birds and animals no longer live with us; in their place we have those adapted to living in more open country. Although wildlife is losing ground, it does not give up easily and perhaps man will come to the rescue while we still have some of this natural beauty about us.

I recall my early fascination for discovering the well-hidden nests of wild birds; and during the nesting seasons, hours after school and weekends were spent searching the woods for them. One of the many birds which nested, and still does, in the woods about our home is the Mallard. Each spring these beautiful friendly birds arrive seeming to expect the shallow runoff waters to last all summer. By hatching time the little temporary lakes have disappeared and all that remains are the larger more permanent sloughs. The situation is even worse now, for many of these sloughs are being drained or have dried up.

When I was in about grade three I found a well concealed Mallard's nest containing eight pearly buff-white eggs hidden in the centre of an old willow hummock by the side of what was probably an ancient game trail. I calculated the hatching date to be somewhere in the first week of June. As this time drew near I kept a very steady watch on the hen duck and her nest. I made hurried checks every morning before leaving for school and again in the afternoon.

The patient hen duck became used to my daily visits and if I did not look directly at her I could approach to

within a few yards of her before she flew up through the trees, leaving her beautiful eggs lying uncovered in their soft cushion of feathers and down. I would inspect the eggs for signs of cracked shell that would indicate the efforts of the little ducks to break free of the eggs. Before leaving I would gently draw the soft feathery edge of the nest in over the eggs by using a stick or small twig which I had handled at only one end, thus avoiding the risk of leaving a trace of human odor on the nest or eggs and making sure to leave the area undisturbed as much as possible. I had learned about this egg-covering business while watching hen ducks as they left their nest to fly to a slough for a hasty drink of water and a quick meal. The duck uses her bill to draw the covering carefully over her eggs before leaving and the few dry leaves which cling to the feathery blanket make the nest practically invisible to predators looking for a meal. At the slough she would take her fill of food and water, briefly preen and bathe herself and with still damp feathers arrive back at the nest.

As hatching time drew near she became more reluctant to leave her nest, and whenever I came near, waited until the last minute before flying awkwardly along the ground, with mimicked injury trying to lead me away. Seeing that I paid no attention she anxiously walked back and forth a few yards away, quacking her protests while I quickly inspected the eggs and carefully left the scene, covering the eggs as usual.

The day of hatching finally arrived and luck was with me; it was a Saturday. On that morning the countryside was filled with a soft, misty, early summer rain. The warm life-giving moisture falling over the land brought out the rich smell of the earth mingling with the pungent odours of dead wet trees, new wild blossoms and



decaying leaf mold. These are the times when the forest quietly replenishes itself with new energy, and as I walked along the wooded path through the dampness of the silent falling rain, I felt even closer to my world of nature.

As I approached the familiar nest site I was filled with exciting thoughts of the wonderful things to be enjoyed with my long-planned-for ducklings. I had not tried to tame wild ducks before; little did I know how soon and how tame they would become. This time the mother duck refused to leave the nest. I walked carefully around within a few feet of her, listening to her making soft duck sounds to her newly-hatched young. I noticed a little movement of her breast feathers, and a tiny baby duck popped his head out looking at me with sharp black eyes. Hardly believing such luck as this, I moved closer. The mother was really defiant and for a moment I hesitated, remembering painfully the bravery of mother hens whenever I tried to pick up their young chicks. However, I could not give up now, and gathering extra courage I stretched my hand towards the brave bird; just as I was about to touch her she moved away, once again putting on his display of mock injury.

Such an entrancing sight the duck revealed when she left the nest: eight yellow and brown soft downy ducklings held warmly in the softest bed any baby thing had ever lain in. Several of the little ducklings were still damp with the moisture of newborn life. They were unafraid of me, having not yet had time to recognize the hen duck as their parent. To them I was part of their new world to be accepted readily as the object of their needs. Jarring myself into action I gathered all eight of the fluffy balls of new life gently into my cap and, carefully holding my hand over them, I hurried the short distance back to our house. Proudly I showed the prize to the rest of my family. For a moment I thought I was home-free, everything was going smoothly. Then after admiring

the little beauties my mother asked the questions — Did you take all the little ducks? Was the mother still there? Answering yes both times, the reality of what I had done suddenly dawned on me. Remorsefully I thought of my selfish act, yet I could not bring myself to give them up. After considerable coaxing I was allowed to keep five. Returning to the nest with the remaining three, I found that the mother duck was still there searching for her lost young. Placing the three ducklings in the nest I retreated a short distance and watched as she came, looked them over and proudly led them off through the trees on their way to water. Hoping that she would not miss the others I hurried home to look after the new infant wild things I had adopted.

I soon had them comfortably situated in an empty grain bin. I carried in an old flat tub to hold water, placing a board in a slanting position from the floor to the edge of the tub, with another board slanting under water to the bottom on the inside, thus providing a ramp for the ducklings to waddle in and out of their artificial pond. I placed a layer of grass and straw on one section of the bin floor. They quickly learned their way around and how to get in and out of the water, doing everything as a group. I spread some crushed grain on the surface of the water and watched as they gathered it up, swimming here and there to catch the floating bits of food. Some of it became waterlogged and started to sink, providing an opportunity for my little friends to show off their expert ability at tipping up their stubby tails as they bobbed their heads under the water to gather up the slowly sinking grain.

I gave them most of my attention that day and Sunday. I ambitiously caught flies, grasshoppers and moths to give them a balanced diet. The little ducks completely accepted me as their natural parent. When I sat quietly near them while they played in the water and waddled up and down their makeshift ramp, they



showed all the contentment of a carefully guarded brood of young under a mother's watchful eye. Tiring quickly, as all young life will, they would scramble into my lap peeping loudly if they were unable to make it until I helped them up. Here they preened themselves before gathering together under my hands to sleep momentarily. Now and then a small black eye would open, and looking me in the face a drowsy little duck would peep some duck language which I was quite sure I understood. Waking from scramble up to my face. Apparently their short nap they would try to the source of my voice was to them the key point of their affection, since as soon as they struggled to my shoulders (a task requiring some help) they snuggled under my chin and as close around my neck as possible, peeping loudly in answer to the small talk I used whenever I was with them.

Monday morning and school came much too soon for me. I had to see that everything was in order for the five little ducks before leaving home. I hurried out to see how they had survived the night, spent like the night before under an arrangement of old grain sacks simulating as much as possible the comfort of a mother duck. As I came to the door I heard I saw them standing together in the peeping sounds of distress. Looking in I saw them standing together in the

middle of the floor very lost and frightened. They were now expecting me to stay with them constantly.

I spoke to them as they quickly gathered about my hands while I knelt to pick them up; they were all now contentedly quiet as they busily checked me from head to foot. Satisfied that I was the lost parent, they hurried up their ramp to play and feed in the tub of water. When they had grown bigger I planned to let them join the barnyard chickens for company. I could see this would soon have to be done if I were to have any freedom. Making them as comfortable as possible and leaving instructions with my mother who had been paying more than a little attention and was willing to help care for them, I left for school.

I would like to say that all the wonderful plans I had for these ducklings, who in such a short time had become so dependent and loyal to me, did come true. But I was expecting too much for them to look after themselves at night and during the day while I was at school. I had also overlooked the fact that the grain bin was far from weather-proof, and one night, a few days later a rain storm came up and the leaky roof allowed the cold moisture in to chill them. They did not survive the night and the next morning I buried their five little bodies near the nest I had taken them from.

## Letters and Notes

### BALD EAGLES AT LA RONGE

On April 18, 1967, Peter Gregg and I went out from La Ronge to the north end of Dominion Island to check a fish net. There were several birds at the pull hole, and as we approached to about 200 yards one of the birds flew up and we saw that it was a Bald Eagle. Much to our surprise the other two birds were also Bald Eagles and not ravens.

On April 20 we saw a Bald Eagle on two occasions. The second sighting,

about an hour after the first, was only about a quarter of a mile from La Ronge when seen. This eagle was being harassed by a couple of ravens.

The interesting thing is that these Bald Eagle sightings are so very close to town. I've been living in La Ronge since May 1965 and had not noticed any until now.

D. Wayne Davis (*Blue Jay*, 24:160-167, 1966) lists seven Bald Eagles reported by C. L. Ferguson as found dead at poisoned bait set intended for wolves. I know of one more which he

overlooked. In late April or early May, 1959. I had the opportunity to go out with Mr. Ferguson in the Uranium City area while I was Department of Mineral Resources Mining Recorder at Uranium City. About ten miles north of Uranium City, there was a bait set at which we landed. The policy was to make the set frozen into ice, check the kill in spring before lakes were open but after the snow was off, and then let the bait sink into the lake. This set was beside an island in the north end of Leblanc Lake near where there was a permanent eagle nest. Anyway, among other things, this set produced an immature Bald Eagle. I remember it clearly, for it was the first time I had seen an eagle so close.

This year I understand that there are about 200 bait sets for wolves in the north. I do not know the merits or hazards of this program but at least the baits are picked up and destroyed in the spring and are not left to sink into the lakes when the ice finally melts.

Since there will be six or seven Mineral Resources geological field parties working this summer in the Precambrian parts of Saskatchewan I suggest that they be asked to watch for and report active nests of the Bald Eagle in Saskatchewan.—A. W. Scarfe, La Ronge.

### INDIGO BUNTING AT AYLSHAM

On June 1, 1967, while I was rounding the corner of the house to take lunch to my husband a small shiny bird flew lazily up to a branch just above eye level in bright sunlight not 20 feet in front of me. As it sat erect, facing me, I tried to note distinguishing characteristics. The blue was a brilliant green blue that paled (not grayed) from throat to belly. The head was round. The beak was light in color and of medium length and width. It perched there so quietly that I thought I could move back and go for my binoculars but it flew to another branch. Then it flew up and away. I could see its back and wings and tail and they seemed quite dark.

Lunch was delayed while I checked in *Birds of America* and then in *The Birds of the Saskatchewan River*. I was surprised to find that Houston and Street record only one sighting of the Indigo Bunting, seen by Maurice Street near Armely, June 23, 1927. I am sure that my bird was an Indigo Bunting and the farm will never be the same again since I saw that flash of incredible blue.

Since then I have seen two pair of Mountain Bluebirds and I'm more sure than ever that I saw an Indigo Bunting on June 1. Its color was so different and its shape was sleek and slender, not fluffy like the bluebird.—Mrs. M. Robin, Aylsham.

### QUERY RE: WHIP-POOR-WILL

On May 28, 1967 we visited a campsite just inside Alberta on the main highway from Dawson Creek, B.C., to Edmonton. At approximately three o'clock in the afternoon, Mrs. J. A. Paul and I were walking near a small slough which extended through a boggy place to a muskeg a few hundred yards west. Both of us distinctly heard the call of a Whip-poor-will, repeated three times, once quite close, and twice further away to the west. I heard the bird fly as if startled, but neither of us could see it. The sound seemed to originate in the mixed poplar and spruce on the edge of the swampy slough, about the level of our heads and within 25 or 50 feet of us.

Mrs. Paul knows the call of the Whip-poor-will well, as she has spent many years in Eastern Canada. I have heard the call in Wisconsin, and I had also refreshed my memory by listening to a recording of it.

Mrs. Paul and I have spent more than 30 years in this area, and have never heard this call here before.—Mrs. Dortha Calverley, Dawson Creek, B.C.

[EDITOR'S NOTE: In answer to Mrs. Calverley's query as to whether the Whip-poor-will could be expected in that location, we have referred her to



the range map given by Godfrey in his new *Birds of Canada* (1966) in which the breeding range of the species is shown to extend no farther west than central Saskatchewan. No casual records west of this range are cited by Godfrey, which means that a record from Dawson Creek would be most unusual.]

## WOOD BISON OR PLAINS BISON?



*Blue Jay* readers may be interested in this snapshot of my son with two skulls of what we believe to be bison or prairie buffalo. The much-weathered bones were found on summerfallow about seven miles south of Porcupine Plain (SW 10-41-9 w2) last summer. The horns measure 28" from tip to tip.

Thirty years ago this country was heavy bush, but it has been cleared and farmed for many years. The bones were brought up by a deep tillage cultivator. We did not know that the prairie buffalo would be found so far north.—*Mrs. G. Knudsen*, Porcupine Plain, Manitoba.

[EDITOR'S NOTE: Because of the location of Porcupine Plain on what used to be the edge of the boreal forest these skulls could represent a slight intrusion of the plains bison into the forest, or possibly a southerly record for the wood bison subspecies. The skulls look big and broad and could be wood buffalo. When such skulls are found, it is worthwhile to save them for the museum for purposes of helping to determine the range of these two recent forms of the buffalo. There should, of course, be some intermediate animals, and those on the fringe may be.]

## SASK. ARCHAEOLOGICAL SOCIETY MEETING

The annual meeting of the Archaeological Society, held at the Saskatchewan Museum of Natural History and at Last Mountain House, April 21-23, 1967 was a great success. The private displays of members were all very interesting. I was especially interested in the illustrated lecture on pictographs presented by Tim Jones. Special speakers such as Professor Z. Pohorecky and Dr. R. Forbes left us with lots of thoughts to ponder. The society could benefit by an increase in membership. More amateur members would be welcome.—*A. J. Hruska*, Gerald.



Photo by A. J. Hruska  
Display of mauls by D. Braddell,  
Reston, Man.



## COUGAR

Thomas White's article on the cougar in Saskatchewan (*Blue Jay*, 25:84-89, 1967) prompts me to write of my experience with a cougar.

My cousin "B" and I encountered one when he was 11 and I 14. We were on a fishing trip on the Kokisulah River about seven miles southwest of Shawnigan Lake on Vancouver Island.

After camping overnight at Grant Lake we returned in the morning to our favourite river where we always got plenty of trout. With us we had a white and tan bull terrier called "Casey" who was afraid of nothing and loved a good fight.

We were having lunch on the stony creek bed with a small fire when we noticed "Casey" barking up a large cedar tree some 200 yards down stream. I commented that he must have something more than a squirrel treed as he wouldn't waste much time on such small stuff. We finished eating and approached the tree which was big and had large drooping branches sweeping close to the ground. I was in the lead and when close heard a low whine. I wish I could say as the novelists do that my hackles rose but I knew not then, nor do I know now whether I have any. However, I felt as if a piece of ice had been dropped down the back of my shirt collar.

We laid down our rods and cautiously approached. "Casey" was very excited and obviously pleased to have allies. I peered under the branches and there about twelve feet from the ground sprawled over several limbs was a large mountain lion grinning at me. With knees knocking I motioned "B" to come see. He did and I think his jaw dropped. We had reason to be afraid since we had no gun, only hunting knives and a belt hatchet; however, the lion appeared more amused than annoyed and just lay there with his or her mouth open. We backed off and tried to call "Casey" away but he would not leave. "B" went to the river and caught a couple more trout and returned and approached the tree

again saying he wanted to see if he could make the cougar blink. He claimed he did. I still blink when I think of how foolhardy we were.—*H. F. Eberts*, 204 Angus Crescent, Regina.

## A MUSKRAT ON OUR LAWN

Saskatchewan had a very heavy snowfall during the winter of 1966-67. In Churchbridge driveways were piled high on either side and ditches were full. As the snow melted, I discovered a grass-lined tunnel leading from the culvert under our driveway approach to our front steps, some 30 feet. The tunnel was three to four inches in diameter. Although the garbage along our street was picked up in front of the houses, I couldn't believe that a barn rat was living there for I hadn't noticed any tracks in the snow during the winter.

By the time most of the snow had melted in April, I became even more puzzled. Tunnels, side by side and grass-floored, covered a swath three to ten feet in width from the culvert to the north side of our front steps which face east. Here, some two feet from the house, was a dense well-made nest of grass the size of one's head. Underneath the nest was an excavation similar to one a jackrabbit makes for temporary hiding in a field. For a week I watched closely. Considerable sprinklings of dung of a rat-sized animal were mixed with the grass along the tunnels.

One warm evening, after most of the snow had gone and the ditches were full of water, I suddenly spied the enterprising animal—a fair-sized muskrat. He was sitting motionless at the water's edge along the front of our neighbor's lawn. We gave chase until he crawled out of the water again and began to "wash" himself. We crowded around and he paid little attention to us. He was apparently healthy. We did not see him again.

This animal had apparently forsaken a shallow, solid-frozen slough during the winter for the comforts of



he city. He liked my Parkland Kentucky lawn grass. In fact, we raked up two and a half well packed garbage cans of dry grass left from his tunnels, nest and other foraging. It would appear to me that muskrats in bygone days may have frequently overwintered without water by making a home in some well-grassed site.—*Sam Beaton, Churchbridge.*

## SPRING IN ENGLAND

We are just back (May 14, 1967) from two beautiful months in southern England. Spring there was as early as it is late here, and we had only one wet week and a couple of other dismal days. At Kew on Good Friday, there were camellias, azaleas and rhododendrons in bloom, though the full tide of blossom was two weeks later we were old. I regretted that we did not get back again. The pocket handkerchief front gardens, and those marvellous parks really make London beautiful.

Kenwood (a Guinness gift of a stately home on Hampstead, with sweeping

lawn down to a little lake and wild woods beyond, with shrubberies and flowerbeds around the lawns . . . . and old Gainsborough, Romney, Reynolds and other Master Painters' works hanging in rooms they were suited to) was a sort of bonus on one of our last days there. I enjoyed it better than the Tate, a good deal.

We had blackbirds near our daughter's house, close to the Colindale section of the Edgware road, and I was surprised how its many notes and timbre resembled our robin's. But birds didn't come my way much, and when they did nobody seemed knowledgeable about birdsong or call notes. Skylarks sang for us at Stonehenge.

We enjoyed our travels, especially the gardens and it was tantalizing to have to leave England just as roses were making buds, but it is nice to be back home to see spring arrive here. Robins, Harris' Sparrows with their sweet plaintive notes, and White-throated Sparrows have been through by the score. We have a lovely little nook for birdwatching.—*Marion Nixon, Redvers.*



From kodachrome by Sheila Keay

Members of Saskatchewan Natural History Society on prairie of East Block, Cypress Hills, June 10, 1967.



# The Blue Jay Bookshelf

**BIRDS OF THE NORTHERN FOREST.** Paintings by J. Fenwick Lansdowne; text by John A. Livingston. 1966. McClelland and Stewart, Toronto. 247 pp. \$20.00 (Canadian).

Canadians may indeed be proud of the artist and author who have combined to produce one of the most beautiful bird books ever printed. This is not a book for bird identification, but a book for pleasure. Lansdowne is now a world-famous painter of birds, and his paintings have appeared in many popular publications. The book contains full-page color portraits of 56 species typical of the coniferous areas of Canada. These paintings have the accurate detail of those by Fuertes, Brooks, Peterson or Crosby, with a flourish rather reminiscent of Audubon.

The accompanying text by Jack Livingston is not the insipid patter that sometimes spoils a book that is centred around good illustrations. Instead, much informative material is presented in a lively style, explaining conservation in its truest sense, showing the need for predators and even for fire and flooding in nature's scheme of things.

This book is one that will be kept and treasured for generations. If you need the ultimate in a special gift item, or plan to indulge yourself in some luxury article, then this is a "best buy".—*C. Stuart Houston, Saskatoon.*

**THE GRIZZLY BEAR: Portraits from life.** By Bessie and Edgar Haynes. 1966. Univ. of Oklahoma Press. 386 pp. Black-and-white illustrations. \$5.00 (American).

Bessie and Edgar Haynes became interested in grizzly bears when visiting Yellowstone National Park, and when they retired, they collected various anecdotes and extracts which have been published in book form.

The first extract is from the diary of Henry Kelsey, whose first published description of the grizzly while in

Saskatchewan was not generally known until recently. We read from the journals of the great explorers and follow their adventures when first coming across this giant bear. There are other reminiscences from mountain men and pioneers who have contributed much to our knowledge of North American wild life. The fearsome charges of grizzlies, with their attacks upon unwary travellers, to battles in stockades with Texas long-horn bulls before Mexican rancheros, all recall the ferocity and cunning of the species. Other stories show how ranchers had some justification for protecting their cattle from its predations. However, the conservationist will be saddened by the way that hunting has destroyed the grizzly over much of its original range, and how in areas where these bears were once common, they were last seen in the 1920's. As the reader proceeds through the many stories the character of the grizzly becomes clearer, and there is much to be learned of its natural history in the extracts which have been included.—*Tom White, Regina.*

**ALEXANDER WILSON: Wanderer in the Wilderness.** By Robert Plate. 1966. David McKay Co., New York. 215 pp. Black-and-white illustrations. \$4.50 (American).

Alexander Wilson is known as the father of United States ornithology and Robert Plate's book gives a general history of Wilson's life. Wilson was a Scottish weaver who had some education at a time when it was not universal and had established a Scottish literary reputation at the same time as Robert Burns. He wrote a satire attacking the local establishment, together with other radical writings. The authorities were alarmed by the French Revolution, and when they proved that Wilson had committed extortion and had strong radical views, they sporadically jailed him until he migrated to the United States at the age of 28 in 1794.



Wilson first became a school teacher and at that time developed a more detailed interest in ornithology. He began to draw birds and was typical of the 19th century artist who was frequently living from hand to mouth and looking for a patron who would support him. This he found in Samuel Badford, who made him editor of an encyclopaedia and also promised to publish Wilson's book "Ornithology." With a good salary and his life's object known, Wilson travelled over New England and the southern states studying birds and selling subscriptions for his books, and after a very difficult time, printed a series of nine volumes containing most of the known birds of North America, and including some species for the first time. Reference is made to his meeting with Audubon, Ord and Jefferson, and light is thrown upon these early naturalists.

The narrative is somewhat syrupy, though the general story, with its illustrations, tells us a little more of natural history in the United States in the early part of the 19th century.—*Tom White, Regina.*

## BIRD BEHAVIOUR

**THE PSYCHOLOGY OF BIRDS:** An interpretation of bird behavior. By Harold E. Burtt. 1967. The Macmillan Company, New York. 242 pp. (including 10 full-page illustrations by Peter Arnell). \$7.25.

This book should be helpful in getting people to look at birds to see what they are doing, an aspect of natural history that has long intrigued naturalists. Professor Burtt was formerly chairman of the Psychology Department at Ohio State University, a post he held for 20 years. The subject is basically well-covered in 10 chapters on "bird psychology", "sensations and perceptions", "major drives and motives", "instinctive behavior", "migration, learning, "social behavior", "communication, "home and family life", and "personality and intelligence." Lest some of these imposing titles scare off the new naturalist, bear in mind, as the publisher points

out, that "everyone, from teen-agers to those older citizens who do *not* wish to arise and hear the lark greet the dawn, will enjoy the author's highly readable anecdotes and sprightly style."

Oddly, no reference is made to works by Konrad Lorenz, whose famed *King Solomon's Ring* will be familiar to many readers, and who has provided considerable impetus to bird behaviour studies. E. A. Armstrong is also not listed in the sources cited in the appendix (see next review). On the other hand, the late Professor Arthur A. Allen's *The Book of Bird Life* is listed as a reference for seven different chapters. Glancing through the book, I was surprised to see a number of misleading statements that suggest the author has not kept abreast of recent ornithological publications. Interesting anecdotes notwithstanding, it is no longer a matter of controversy whether vultures can smell their prey (they can). Few evolutionists will agree with the statement in respect to the origin of birds, that "those reptiles with enough feathers to get them off the ground were more likely to survive, and this characteristic was passed along to the offspring", or with the following explanation of certain specializations: "Birds that dove into the water after fish were more likely to have adequate nourishment and their offspring would follow suit."

I think that it is unfortunate the author didn't have some ornithologist or good bird-watcher check the spelling of the common names in the text. This, however, one can forgive; but not the statement, egregiously in error, that a grebe "gets the young one on its back, swims out to deep water and submerges so that the juvenile will have to swim." Oversimplification, presumably stemming from a desire to make the book more readable, has led to such comments as "hybridizing . . . it is not too desirable genetically." Having watched Red-winged Blackbirds for many years I feel qualified to question the statement that the "male may carry a bit of



nesting material around conspicuously" during the courtship phase. Frequent comments on the relationship between human and bird behavior enliven the text but these psychological discussions were sometimes inept and distracting.

Dr. Burt, who took up bird-watching as a hobby after he retired, should know that few will agree with him that ducks when feeding "put the front half of their body underwater and leave the other half sticking grotesquely in the air." That is bad psychology.

**BIRD DISPLAY AND BEHAVIOUR:**  
An introduction to the study of bird psychology. By Edward A. Armstrong. 1965. Dover Publications, Incorporated, New York. 431 pp. 32 plates and frontispiece. 30 line drawings. \$2.50 (paperbound).

It is a pleasure to recommend this fine book, recently reprinted with a new preface by the author. The original work was first published in 1942 as *Bird display*, but the present edition has been greatly revised and enlarged and is well worth the money even if you have the earlier edition. The preface to this edition is an extremely pithy statement of recent progress in animal behaviour and particularly bird behaviour; in it, the author shows that the work done by some early naturalists is similar to studies being carried out today by "ethologists". "Instead of harbouring preconceptions based, sometimes naïvely, on introspective premises, the ethologist, starting from the observed and recorded movements, utterances, colour changes and the like of the creature being studied, makes inferences in regard to the underlying mechanisms and their organization. Since the nature of few of the phenomena studied is adequately known, this involves the use of an interim descriptive terminology. Because of this, ambiguities and differences of opinion occur. They indicate the fluid nature of the conceptual field in this

science." The author, one of several British men-of-the-cloth who have attained international eminence as astute observers, is careful to point out that although it may be useful to substitute terms with more restricted meaning, e.g., "motivation" for "emotion", "it should be realized that a terminology drained of the connotations of introspective experience may lead to a too ready acceptance of presuppositions concerning the mechanistic character of behaviour."

The book begins with a discussion of the "ceremonial of the Gannet" then goes on to "the psychological basis of nest-building", "courtship feeding", "ceremonial gaping", and the "comparative study of display". It contains seventeen additional chapters such as "the function of emotion in behaviour", "greeting, invitation and nest-relief ceremonies", "the dances of birds and men", "dominance and territory" and "the significance of display" are covered. This vast amount of material is carefully documented by reference to a bibliography of 38 pages comprising more than 1000 works. What is particularly valuable is the comparison made with the behaviour of other animals throughout the book. Although more of a reference book than a story book, this book invites reading. I can open it to practically any page and become immersed at once, and come away enlightened and entertained. There is a wealth of information in this book about what birds do; if you already enjoy birds you ought to find this book a useful addition to your library. In the words of the author: "Birds still occupy much attention, not least because they are easily observable and expressive. We may anticipate steady progress in this field, and it is to be expected that constructive synthesis combined with the accepted analytical methods of investigation, avoiding gratuitously mechanistic assumptions, may contribute to a more adequate and passionate appreciation not only of animal behaviour but of the human condition."



**A COMPARATIVE LIFE-HISTORY STUDY OF FOUR SPECIES OF WOODPECKERS.** By Louise de Kiriline Lawrence. 1967. Ornithological Monographs No. 5, The American Ornithologists' Union. Lawrence, Kansas. 156 pp., 33 figs., 15 tables. \$3.75 (\$3.00 to A.O.U. members).

No doubt a number of readers will recognize Mrs. Lawrence as the author of some fine nature writing, as well as an outstanding report on the Red-eyed Vireo (*Can. Field-Nat.*, 67:47-77). In either case, we have come to expect excellence in connection with her name, both as an observer and as a writer. She has not let us down in this most recent work, a scientific report on the Yellow-bellied Sapsucker, Yellow-shafted Flicker, Hairy Woodpecker, and Downy Woodpecker. To use the author's words, "This investigation into the behavior of wild woodpeckers concentrates on their activities, the meaning and derivation of their movements, and the relation of these to the functions of the birds not only as a group, but more particularly as individuals subjected to various changeable situations." In recent years it has become increasingly clear that even the most ordinary species are worthy of study, often yielding results of significance beyond the understanding of the species involved. As a consequence, it is now possible to read lengthy reports about some fairly familiar, but as it turns out, little-known birds. The woodpeckers are a good example, and readers who have watched the antics of any of the four species studied by Mrs. Lawrence will enjoy following the course of her studies. We have here the distilled results of seven years of intensive observations, in all some 800 hours of solid field work. This was possible owing to the location of the author's home in the midst of choice woodpecker habitat at Pimisi Bay, Ontario. The observer who can afford to spend long hours afield studying his subjects is likely to be well rewarded: "... it seems to me that the keys to accurate interpretations of bird behavior are

seldom extracted from disconnected samples of activities, but are found secreted deeply within sequences of events whose correlations may be lost with missed installments. Time and patience are surprisingly reliable allies in providing the answers to many insoluble problems."

The topics covered in this study are: "movement, displays, and means of communication", "inauguration of the breeding cycle", "role of the territory", "pairing", "excavation period", "egg-laying and incubation periods", "nestling period", and the "post-nesting period." The author handles this material with clarity and simplicity, but without sacrificing the sense of reality; it is this impression of looking over the observer's shoulder as she follows the action of woodpeckers in her woods that appealed so much to me and that makes the whole work so convincing. Try, for example, this account of a conflict between two male sapsuckers: "Suddenly they went into an aggressive display of great intensity. This time it did not merely dissolve into pursuit, as it had done before uncounted times a day. The two males crashed together. The impact bore them to the ground, bill to bill, breast to breast, feet clawing. In a flash the two were again wing-borne and engaged in a prolonged pursuit of amazing swiftness. They chased each other through the trees so closely in serpentine undulations and dizzy curves that they looked like one, up high, down low. This went on for the best part of that day with only short pauses. Neither bird showed signs of giving in. After another fight and dash, they finally brought up together in the same poplar. There, where she had not been before, a female clung to a branch. Ensued a display of great intensity. Like knights in a tournament, crimson crests erect, bills trembling like red beards, backs deeply depressed and tails trailing, the two males rode the branch, pointing and jerking their bills from side to side." —Robert W. Nero, Manitoba Museum of Man and Nature, Winnipeg.



## Announcing HOURS AND THE BIRDS

Scheduled for publication this year is Robert D. Symons' lively personal account of his experience of birds in Saskatchewan, entitled *Hours and the Birds—a Saskatchewan Record*, and illustrated by his sensitive full-page water colour paintings and a wealth of black and white sketches. R. D. Symons is a long-time member of the Saskatchewan Natural History Society, and a past chairman of our Conservation Committee. He is perhaps best known to members for his work (with Fred W. Lahrman) painting the backgrounds for the realistic habitat cases in the Saskatchewan Museum of Natural History. These habitat cases rank with any on this continent, and they leave no doubt as to his reputation as an artist. His reputation as a writer dates chiefly from the publication by Longmans Green in 1963 of his book, *Many Trails*.

Of Symons' new book, Will Klein, Executive Director of the Saskatchewan Centennial Corporation (which is giving generous financial support to SNHS to assist in the printing of the work) writes glowingly in the foreword:

"In Robert D. Symons' own words, 'the eye sees as the heart directs,' and for fifty years this artist son of an artist father has carefully observed the ways of birds, beasts and people in the western Canada which he has made his own. His book is written with sympathy and conviction and carries the authority of research and knowledge.

"Though there can be no doubt concerning Mr. Symons' thorough familiarity with the varied subjects dealt with in *Hours and the Birds*, his style is vigorous and fresh, sensitive and perceptive, at no time pedantic or prosy, so that not only the avid 'bird-watcher' and ornithologist, but the casual reader as well will find it a source of delight, as much for the clarity of its expression as for the delicacy of its illustrations.

"*Hours and the Birds* is more than a handbook of Saskatchewan avian life. It is, in fact, a history, a philosophy, a topographical and ecological guide book, containing a significant amount of social commentary, encapsulated in the story of one man who, with an extraordinary gift of vision, has lived and moved among the people of Saskatchewan in an unobtrusive and wholly unpretentious way for half a century.

"Because the gift of insight with which Mr. Symons is endowed is so meaningful to the people of this nation, particularly when it is backed up by his ability to portray, both by brush and in written form, the observations of a lifetime, the Saskatchewan Centennial Corporation, together with the Saskatchewan Natural History Society is pleased to have had a part in making this work available to the public."

*Hours and the Birds — a Saskatchewan Record* will be published by the University of Toronto Press, assuring the highest standard of printing. Illustrated by 17 color plates and numerous sketches, it will be an ideal item for presentation or gift, and a book that will be handed down as a family treasure to succeeding generations. We trust that every member will wish to buy one. This is our Society's big centennial project and the only book to receive the support of the Saskatchewan Centennial Corporation. Our investment in this book can be recouped only through sales of this book by the Blue Jay Book Shop, Box 1121, Regina. Send your order now — \$12.50 plus tax.

### USED BOOKS WANTED

If you have books on birds, plants, minerals, or any natural history or natural science subject to sell please send your list to W. W. McGregor, 59 Divadale Drive, Toronto 17, Ontario.



# A TRIBUTE TO DR. LUCY H. MURRAY

by **Elizabeth Cruickshank**, 2329 Athol Street, Regina

In Dr. Lucy Murray's passing on July 21, 1967, the S.N.H.S. lost a treasured member.

Days patterned with happy associations and experiences will flood the memories of those who knew her well. Associates will remember a radiant, humorous, informed and dedicated worker whose heart was ever responsive to the beauties of nature.

A rare or unusual find, she had to share. A friendly service, she was ever ready to render, time or effort not being considered. Freely she gave of herself and her possessions. "That's what friends are for." A mind endowed with a mystic sense of wonder, the

ever eager delight of youth in all living wild things, was hers.

The quest for beauty is essentially a seeking of the spirit. Life, to Lucy Murray, was meant to be a thing of beauty. As a seeker, she was grateful for generous gifts nature had bestowed upon her.

As life's symphony goes on, memories of rich comradeship, her liveliness, energy and courage will remain with those who knew and loved her, her spirit illuminating all.

Heartfelt sympathy goes to Dr. Jean who has been bereft of a devoted sister.



Dr. Lucy Murray at Wordsworth's "Dove Cottage", the Lake District, England, June, 1956.



## TRIBUTE TO W. M. HUGHES

We were deeply sorry to read of the sudden passing away in Edmonton, Alberta, of Mr. William Marsdon Hughes of 8755 S.W. Marine Drive, Vancouver, B.C., on the 5th of June, 1967. It was he who introduced us to *The Blue Jay*, and he was a most enthusiastic supporter and admirer of your publication.

Our acquaintance with Mr. Hughes dates back to 1959 when we responded to his newspaper appeal and reported a pair of Crested Mynah in our neighborhood. From that time on whenever we needed any help in identifying a bird, or answering any sort of "bird" question, he was always most cordially interested in our amateur efforts. For instance, in February 1963 when we had what we thought was a Yellow Warbler at our feeding station we called Mr. Hughes, whose immediate response was "It couldn't be, in mid-winter—but then, one should never say 'it couldn't be' when it comes to the bird world, because the impossible is always happening". And he came trudging along, having walked 3 or 4 miles carrying a heavy bag of peanut hearts for our feeder, and waited patiently at our kitchen window, finally identifying our unusual visitor—an Orange-crowned Warbler. He was keenly interested and remarked that this would probably be either the second or third recorded sighting of this little bird wintering in Vancouver..

His enthusiasm and love of nature, his untiring support of all conservation programs, surely contributed in no small way in arousing public support for many such local ventures. Only recently he completed a two- or three-year study of the bird problem which was such a hazard to the aeroplanes at the Vancouver Airport, and on many occasions worked around the clock to solve such problems.

While many tributes may be paid Mr. Hughes by professional people, may we through your pages pay our

humble respects to him.—*Arthur and Joan Wootton*, Box 1321, Langley, B.C.

## MAURICE STREET WILDLIFE SANCTUARY

Two signing officers of the Saskatchewan Natural History Society met with Mr. George G. Rathwell, Director, Resources Land Branch, Department of Natural Resources, Government of Saskatchewan, August 2, 1967, to sign the 21-year lease and to accept responsibility for the property now known as the Maurice Street Wildlife Sanctuary, for the Society.

Mr. Stan Riome, Nipawin, Vice-President of the SNHS, conceived the idea of this memorial; he chose the land and made all the arrangements with the government. Title to this Crown Land had first to be transferred from the Department of Agriculture to the Department of Natural Resources who then prepared the special lease which gives us permission to use and to conserve all the portion of Section 1-52-14 W2nd which lies to the east of the Saskatchewan River and all that portion of S½ of Section 12-52-14 W2nd which lies to the south of the Saskatchewan River.

## ANNUAL MEETING

The SNHS holds its annual meeting this year, October 13-14, at the Saskatchewan Technical Institute in Moose Jaw. There will be a film and an informal social hour Friday evening hosted by the friendly Moose Jaw Natural History Society. There will be business and entertainment and coffee all day Saturday. Members slides (limit of ten each) is a regular and enjoyable feature of the annual meeting. The programme will end with a smorgasbord and a guest speaker. Send nominations and resolutions to Dr. Maureen Rever, Dept. of Biology, University of Sask., Saskatoon; requests for information about programme to Mr. Gordon Silversides, 1201 Grace St., Moose Jaw.



# THE SASKATCHEWAN NATURAL HISTORY SOCIETY

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## THE BLUE JAY

**Editor:** George F. Ledingham; **Assistant Editors:** Margaret Belcher, Robert W. Nero; **Junior Naturalists' Editor:** Mrs. Joyce Deutscher.

All items for publication should be submitted to George F. Ledingham, Editor, 2335 Athol Street, Regina.

## MEMBERSHIPS

The classes of memberships in the Saskatchewan Natural History Society are as follows: *Regular*, \$2.00; *Supporting*, \$3.00; *Sustaining*, \$5.00; *Junior* (including schools), \$1.00. The *Blue Jay* and *Newsletter* are sent without charge to all members not in arrears for dues.

Send all renewals and new memberships to Frank Brazier, Treasurer, SNHS, Box 1121, Regina, Sask.

## REPRINTS

Requests for quantities of reprints of any article printed in the *Blue Jay* should be sent to Printcraft Ltd., Regina, Sask., within one month of publication. Contributors wishing a few extra copies of the current *Blue Jay* may get them at cost. Requests for these should be made to the Editor when material is submitted for publication.



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